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CONTEMPORARY ISSUES AND METHODS FOR
APPRAISING COMMERCIAL PROPERTIES

Presented by

Professor James A. Graaskamp, Ph.D., CRE, SREA
University of Wisconsin, School of Business

INTRODUCTION

I. INTRODUCTION TO CONTEMPORARY ISSUES

Appraisal of real estate income properties is a critical social function with high ethical requirements because it is a pivotal benchmark for decisions involving social equity, validation of financial institution assets for regulatory purposes, governance of private contracts, and benchmarking of the effectiveness of asset manager.

- A. Appraisal is a specialty in the rapidly evolving information business. Appraisers systematically collect information, organize and analyze the data, and reach decisions about value while communicating essential information to a client. This is similar to the work of:
 - 1. Accountants
 - 2. Insurance managers
 - 3. Security and investment counselors
 - 4. Lawyers

- B. Unlike accountants and others, appraisers receive little help from their professional organizations in the form of position papers which define appropriate methods for a particular question.
 - 1. Accounting has the Financial Accounting Standards Board (FASB) that continually modifies generally accepted accounting principles to fit new problems such as mergers, current values of fixed assets, accounting for real estate operations, etc.
 - 2. Securities people have the Midwest Securities Association.
 - 3. The insurance education program is controlled by two independent organizations, the American College of Life Underwriters and the American College of Property and Casualty Underwriters.

4. Appraisers have no such independent fixed point. Even the Eighth Edition of the Institute textbook disclaims any responsibility for being a standard. The flyleaf of the Eighth Edition says:

"FOR EDUCATION PURPOSES ONLY
The opinions and statements set forth herein are those of the individual members of the Institute's editorial staff and do not necessarily reflect the viewpoint of the American Institute of Real Estate Appraisers or its individual members."

- C. As a result, the appraisal process is evolving into one of the following:
 1. The art of disinformation as in military intelligence where the appraiser is implicitly part of a conspiracy with his client to provide documents that satisfy regulators, provide cover against future charges of negligence, or provide bargaining points for income tax, real estate tax, divorce settlements, partnership dissolution, and other negotiations.
 2. The discipline of rigid format and language for purposes of standardization at the expense of relevance and as an alternative to qualifications of the appraiser's judgment as opposed to form filling ability.
 3. A counseling assignment wherein the appraiser must select and match the basic elements of the appraisal assignment to the requirements of the decision for which the appraisal is sought as a benchmark.
- D. Distinguishing carefully between advocacy and suitability, the ethical and professional appraiser must counsel his client on the basics to establish a fit between the appraisal and the issue for which it is required as a benchmark, including, but not limited to:
 1. Definition of real estate interests to be appraised

2. Definition of highest and best use
3. Definition of market value
4. Definition of what constitutes market comparison
5. Definition of accounting rules for the income approach
6. Definition of the economic context assumed
7. Definition of buyer and seller perspectives
8. Definition of rules for anticipating future benefits
9. Definition of who is considered an independent observer

CONTEMPORARY ISSUES AND METHODS FOR
APPRAISING COMMERCIAL PROPERTIES
(Continued)

II. BASIC PREMISES OF CONTEMPORARY APPRAISAL

The basic premises of the contemporary approach stem from the fundamental belief that pricing is a behavioral science, that analysis should be inductive rather than deductive wherever possible, and that appraised values are intended to serve as a benchmark for some decision process.

- A. A price is a social transaction and the behavior of the parties and configuration of the transaction reflects a consensus at some point in time between external market forces sufficiently strong to impose on the outcome and internal forces on the supply side sufficiently strong to pursue their own self-perceived interests. (See Exhibit 1.)

Notice that the above does not presume:

1. Both demand and supply forces to have alternatives of equal indifference.
 2. Negotiation abilities of equal force, or
 3. Cash maximization as their sole criteria - all of which characterize the traditional approach.
- B. The contemporary view sees appraisal as a limited and fictional case of feasibility analysis which, in turn, is a limited case in problem solving which, in turn, is part of a larger planning framework.
- C. Appraisal as a fictional feasibility study is a model of a decision process and, therefore, like all models is constrained by the following elements:
1. What is the nature of the question?
 2. What quantity and quality of data may be available?

3. What theory or hypothesis may edit and focus the available data as a tentative answer to the question?
 4. What techniques and data management can be used reliably by the analysts?
 5. What techniques and data management have credibility with the ultimate decision maker hiring the analyst?
 6. What techniques and data management are cost effective in terms of the dollar consequences of the decision?
- D. Functions of appraisal differ dramatically and lead to multiple definitions of value.
1. Validation (mortgage loans)
 2. Benchmarking performance (pension funds)
 3. Confrontation (legal cases)
 4. Counseling (investment decisions)

CONTEMPORARY ISSUES AND METHODS FOR
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(Continued)

III. THE PROCESS OF CONTEMPORARY APPRAISAL

In that light, the sequence of steps required of the contemporary appraisal process referred to by Wisconsin students as RATGRAM is as follows:

- A. What is the issue for which the appraisal is sought as a benchmark?
 - 1. Problem perceived redefined to the problem as understood
 - 2. Statutory or financial
 - 3. Perspective in time, viewpoint, and continuum as going concern

- B. What are the attributes of the property and the potential for productive alternative courses of action for future use
 - 1. Responsibility for engineering, marketing, or legal/political assumptions
 - 2. What special enhancements or encumbrances are to be valued as additional sticks in the bundle of rights to be appraised
 - 3. Opportunities for monopoly in space, place, or time

- C. Given the basic alternatives, what is the most probable use matrix relevant to the appraisal purpose?
 - 1. English Royal Institute of Chartered Surveyors (RICS) distinguish between existing use and all possible uses
 - 2. With or without zoning change
 - 3. With or without possible assemblage value
 - 4. With or without administrative rule recognition

5. With or without opportunity cost doctrine
- D. Given the most probable use, who is the most probable buyer in terms of class, motivation profile, or market position? (See Exhibit 3.)
 - E. Given the most probable use and most probable buyer assumptions, there are three approaches to predicting most probable price:
 1. Inference from past transactions involving properties of similar potential and buyers of similar motivation.
 2. Failing adequate transaction data, it is then acceptable to simulate the pricing methods of the most probable buyer.
 3. Failing to find either similar properties or articulate buyers, the appraiser is then permitted to use normative methods which indicate what might happen if buyer and seller were as smart as the appraiser.
 - F. With an initial estimate of value, it may then be modified for external conditions unique to the parties, the place, or the time.
 - G. The adjusted value must then be tested to demonstrate that results at that price would be consistent with the minimum goals of all major parties to the transaction.
 - H. Since the appraiser is predicting price under conditions of uncertainty and many different market terms, the appraisal conclusion must be expressed as a central tendency within a transaction zone which is qualified by financial terms and/or critical assumptions about unknowable facts.
 1. Although the Institute uses fair market value and most probable price interchangeably, that is a travesty on the work of modern theorists and a deliberate attempt to confuse or negate the implied criticism of traditional ways by contemporary analysis. (See Exhibits 1 and 2.)

2. Contemporary theory recognizes explicitly the errors in forecasting, the role of financial terms, and the reality of bargaining position.
 - I. These general precepts are then expanded into an appraisal report outline of the general type included in Exhibit 4.
 - J. We believe it is important that every appraisal first report fair market value strictly defined as cash to the seller for the real estate interest as a standard point of departure and that value enhancements and encumbrances then be reported in reference to that base number. Most probable price will only be the same as fair market value where the most probable buyer behaves as though he were the most prudent man buying only returns attributable to land and building.

EXHIBIT 1

CONTEMPORARY DEFINITION OF MOST PROBABLE PRICE

"Most Probable Selling Price", as defined by Professor Richard U. Ratcliff:

The most probable selling price is that selling price which is most likely to emerge from a transaction involving the subject property if it were exposed for sale in the current market for a reasonable time at terms of sale which are currently predominant for properties of the subject type. [1]

[1] Unpublished quotation, Richard U. Ratcliff speaking on his book Valuation for Real Estate Decisions, Santa Cruz, CA, Democratic Press, 1972.

EXHIBIT 3

SAMPLE PROFILES OF MOST PROBABLE USE AND BUYER

The most probable use of the subject property would be as a shell for conversion to three small retail units on the first floor, four townhouses in the three-story structure, and two 700 square feet office modules with skylights in the second-story structure.

A review of sales on the Square and along the State Street Mall reveals that the buyers of these properties have been either a local businessman who was seeking a new location for his business or a professional real estate investor who was willing and able to execute extensive renovation and re-leasing. Those comparables that were bought by businessmen primarily for their own use were small and narrow; the larger buildings, similar in size to the subject property or larger, were purchased by professional developers who already had other commitments in the downtown area. The old Leath Furniture building, which was purchased by amateur businessmen for use as a restaurant, is again available for rent because the new owners discovered that their intended use was not compatible with building codes. Three of the seven comparables were partially occupied by the new owner; five were financed by the seller with a 10 percent to 15 percent down payment and a land contract at 8 percent; six were sold for significantly less than May 1, 1976, assessed valuation; and in six of them, the first floor was subdivided into retail rental units with about 20 feet of frontage each.

Therefore, the most probable buyer will be a professional real estate developer who expects to remodel and redirect marketing of the subject property. The most probable buyer expects generous land contract terms and resale, before or after conversion, to a small group of participating equity investors. The professional investor will negotiate only after the owner has had the property on the market for a protracted period of time and is willing to sell it well below assessed valuation.

EXHIBIT 4

CONTEMPORARY REAL ESTATE APPRAISAL REPORT OUTLINE

Letter of Transmittal

1. Brief statement of appraisal issue
2. Definition of value applied
3. Value conclusion (qualified by financing, terms of sale, and range of probable transaction zone as appropriate)
4. Sensitivity of conclusion to critical assumptions
5. Property observations or recommendations
6. Incorporation by reference of limiting assumptions and conditions

Table of Contents

List of Exhibits

Digest of Facts, Assumptions, and Conclusions

1. Property type
2. Property location
3. Property ownership
4. Determinant physical attributes
5. Controlling legal-political attributes
6. Pivotal linkage attributes
7. Marketable dynamic attributes
8. Most probable use conclusion
9. Most probable buyer profile assumed
10. Initial probable price prediction and central tendency
11. Adjustment of preliminary value estimate for external factors or market position of parties
12. Testing of corrected probable price for consistency with most probable buyer objectives
13. Final value conclusion and range of error estimate as appropriate

I. Appraisal Problem Assignment

- A. Statement of issue or circumstances for which appraisal is intended to serve as a decision benchmark and date of valuation
- B. Special problems implicit in property type or issue that affect appraisal methodology and definition of value

EXHIBIT 4 (continued)

- C. Special assumptions or instructions that are provided by others
 - D. Definition of value, which is the objective of appraisal analysis and disciplines appraisal process
 - 1. Selected definition and source
 - 2. Implicit conditions of the definition
 - 3. Assumptions required by relevant legal rulings
 - E. Definition of legal interests to be appraised
 - 1. Legal description and source
 - 2. Permits, political approvals, and other public use entitlements
 - 3. Fixtures or personalty to be included with sale
 - 4. Specific assets or liabilities excluded as inconsistent with issue or premise of appraisal
- II. Property Analysis to Determine Alternative Uses
- A. Site Analysis
 - 1. Physical (static) site attributes (size, shape, geology, slope, soil hydrology, etc.)
 - 2. Special site improvements (wells, bulkheads, irrigation systems, parking surfaces with unique salvage or re-use characteristics, etc.)
 - 3. Legal-political attributes (applicable federal, state and local zoning, covenants, easements, special assessments, or other land use codes and ordinances, etc.)
 - 4. Linkages of site (key relationships to networks, populations, or activity centers that might generate need for subject property)
 - 5. Dynamic attributes of site (perceptual responses of people to site in terms of anxiety, visibility, prestige, aesthetics, etc.)
 - 6. Environmental attributes of site as related to off-site systems or impact areas.
 - B. Improvement Analysis
 - 1. Physical (static) attributes of improvements, cataloged by type, construction, layout, condition, structural flaws, etc.
 - 2. Mechanical attributes (brief statement of heating, ventilating, air conditioning, electrical, plumbing, and fire or safety systems in terms of limitations on use or efficiency)

EXHIBIT 4 (continued)

3. In short, it is useful to subdivide improvements into subsystems:
 - a. Foundation system
 - b. Structural system
 - c. Vertical circulation
 - d. Horizontal circulation
 - e. Floor system
 - f. Ceiling system
 - g. Roof system
 - h. Internal wall system
 - i. External wall system
 - j. HVAC system
 - k. Communications system
 - l. Traffic separation system
 - m. Security system
 - n. Life safety system
 - o. Waste removal system
 4. Special structural linkages to off-site elements (tunnels, bridges, adjoining structures, etc.)
 5. Legal-political constraints on use of existing improvements (federal, state and local building codes, fire codes, conditional use procedures, neighborhood associations, and inspection liens of record for violations).
 6. Dynamic attributes of existing improvements (impressions created by type, bulk, texture, previous uses, past history, or functional efficiency)
 7. Current uses and tenancies of improvements, if any
 8. Environmental impact attributes of improvements on environs
- C. Identification of Alternative Use Scenarios for Subject Property
1. Marketing existing uses of property as is
 2. Renovation of existing property and marketing improved space
 3. Redirection of existing property to alternative tenancies and uses
 4. Replacement of existing improvements or program with new uses

EXHIBIT 4 (continued)

III. Selection of Most Probable Use

A. Comparative Analysis of Alternative Uses

1. Testing and ranking alternative use strategies for legal-political compatibility
2. Testing alternative use scenarios for fit to physical property attributes within reasonable cost to cure
3. Selection of scenarios that justify market research

B. Analysis of Effective Demand for Selected Uses

1. Search for rents and income potentials of scenario space-time products
2. Screen and rank market targets
3. Apply income-justified residual investment approach to rank economic power of alternative market scenarios
4. Evaluate marginal revenue, marginal investment risk trade-offs

C. Summary Matrix for Selection of Most Probable Use Scenario

1. Physical fit
2. Legal-political risk
3. Strength of market demand
4. Adequacy of available financing
5. Revenue and cost assumptions risk

IV. Prediction of Price for Subject Property

A. Specification of Most Probable Buyer Type Implied by Most Probable Use

1. Criteria motivations of alternative buyer types
2. Selection of most probable buyer type as basis for prediction
3. Specification of essential site, improvement, financial, or key decision criteria of principal alternative buyer types

EXHIBIT 4 (continued)

- B. Explanation of Appraisal Methodology for Prediction of Probable Purchase Price
1. Preferred method: to infer buyer behavior from actual market transaction and market data available from sales by comparable buyers of acceptable alternative properties
 2. In the absence of adequate market sales data, the alternative method selected for simulation of probable buyer decision process
 3. If market influence of simulation is impossible, select normative model such as investment value, or cost to replace
- C. Search for Comparable Market Sales Transactions
1. Unit of comparison
 2. Method of comparison
 4. Investigation of sale transaction circumstances
 5. Evaluation for comparability
 6. Definition of predominant terms of sale
 7. Source of comparative adjustments
- D. Determination of Suitability of Existing Market Data for Inference of Value for Subject Property
1. Where data is adequate, selection of market comparison method to estimate value
 2. Where data is lacking or misleading, selection of method leads to simulation in E or normative methods in F
- E. Simulation of Probable Buyer Decision Process if Market Comparison Approach is Inconclusive or Impossible
1. Source and explanation of simulation model
 2. Schedules of simulation assumptions
 3. Range of alternative simulation value predictions (sensitivity analysis)
- (OR) F. Selection of Normative Model of Buyer Behavior
1. Investment model
 2. Cost-to-replace model
 3. Nonquantitative decision models
- G. Computation of Most Probable Price and Standard Error of Prediction

EXHIBIT 4 (continued)

- H. Correction of Preliminary Value Estimate for External Factors
 - 1. Identification of conditions relative to date of appraisal not present in market comparison assumptions
 - 2. Specification of political contingencies that might upset normal appraisal assumptions of substitution
 - 3. Identification of any violation of conditions in the definition of value by the appraisal methodology
 - 4. Indication of adjustment necessary to preliminary probable price estimate or
 - 5. Explicit statement that no adjustment is necessary

- I. Test of Most Probable Price or Value Conclusion by Means of:
 - 1. Comparison to values derived from selected alternative appraisal methodology
 - 2. Demonstration of achievement of objectives of most probable buyer minimum selection criteria
 - 3. Measurement of fit of financial cash requirements to market rents, lender ratios, or other relevant constraints
 - 4. Comparison to decision criteria appropriate to issue (financial ratios required by mortgage lender, comparative assessments of similar property for the tax appeal board, rates of return in alternative investments, construction prices for similar property, or whatever demonstrates consistency with statement of the issue)

- V. Appraisal Conclusion and Limiting Conditions
 - A. Definition of Value and Value Conclusion of the Report
 - B. Certification of Independent Appraisal Judgment
 - C. Statement of Limiting Conditions that Establish:
 - 1. Contributions of other professionals on which report relies
 - 2. Facts and forecasting under conditions of uncertainty
 - 3. Critical assumptions provided by the appraiser
 - 4. Assumptions provided by the client
 - 5. Controls on use of appraisal imposed by the appraiser

EXHIBIT 4 (continued)

Appendices

Maps, data sets, only if referred to in the text. These data collections would slow down the reader if included as an exhibit and are secondary to the argument in the body of the report.

CONTEMPORARY ISSUES AND METHODS FOR
APPRAISING COMMERCIAL PROPERTIES
(Continued)

IV. THREE BASIC METHODS OF APPRAISAL

Dilmore has the most basic philosophical view of the three approaches to value while Ratcliff has the most operational sense of researching and forecasting value.

A. Dilmore refers to the three approaches as order, chance, and beauty

1. Assuming order, there is a universe in which the parts fit and we shave away the chaotic mass of information until we find the critical pattern. Like the test for color blindness, the appraiser is looking for the pattern of red dots in a field of random dots of various colors which appear to be scattered.
2. Chance acknowledges the possibility that in the closed system there may be possibilities which were not considered or that there may be an error. No respectable scientist is afraid of the word "error". In appraisal, imprecision is built into the process of choosing data subjectively before we attempt to treat it objectively.
3. Beauty simply recognizes intuition and elegance in our forecasting model may be legitimate reasons for its use. Intuitive reactions, qualitative judgments, or gut feelings are a form of aesthetics in the decision process.

B. Ratcliff concludes that most appraisals are concerned with prediction of a future event, a transaction price. Since an appraisal method is a forecasting tool, forecasting is best done with inference from selected past experience. Failing that, the best method is simulation of the real estate market process.

1. Given reliable information on past market behavior, the preferred method of appraisal is to process the data, statistically if possible, to derive a prediction of future price behavior under given conditions and with means for estimating the reliability of the prediction.
 2. Statistical prediction if possible.
 3. Set theory for definition of a data set at the least.
- C. Should market data be unavailable or inconclusive, the appraiser is forced to resort to the second method of appraisal, namely the construction of a real estate investment or decision model of factors which reflect his understanding of how buyers and sellers might behave.
1. The income approach and the cost approach are submodels of how an investor is supposed to behave.
 2. After-tax investment models are another submodel of market behavior, but while these may measure demand from the buyer's viewpoint, it may not measure the minimum price expected by the seller who also has a tax model to consider. In using the second approach, the appraiser must be very careful to indicate price on the supply side representing minimum expectations (Vs) of the seller.
- D. Should there be no sales and no way to verify how buyers would review the specific property (utility case - rate base or kilowatt production?), then the appraiser falls back to normative methods.
1. Normative means what the buyer would do if he were as smart as the appraiser and motivated only by a desire to maximize wealth.
 2. The traditional income approach or the cost approach are normative models unless it can be proven buyers behave accordingly.

3. After-tax cash flow models are normative models until it can be shown that buyers and sellers use cash flow to value property.
- E. Highest and best use or most probable use in order to identify most probable user and buyer, requires analysis and explicit recognition of possible uses which are:
1. Legal/political acceptability
 2. Physical/technical feasibility
 3. Effective demand and marketability
 4. Financial viability
 5. Community compatibility
- (See Exhibits 5, 6, and 7.)
- F. Most probable use presumes economic feasibility while many projects today require only financial solvency due to special enhancements or encumbrances which modify the operating characteristics of the property. These are not inherent in fee simple title but require expansion of the definitions of legal interests to be acquired; the appraiser may require legal support for presuming the transferability of these enhancements or a cost for elimination for an encumbrance.
1. Enhancements include special entitlements under land use control laws, subsidized financing program, financial reserves which travel with the title and the assumable financing, and all manner of profit centers provided by operating agreements which may be assignable under certain review procedures.
 2. Encumbrances such as licenses, easements, and leases may be removed depending on relative positions of buyer and seller which are not within the American rule that fee simple title is the sum of the parts.

3. Economic surplus for the user is not adjusted for economic costs to external parties unless the political system can find methods to internalize these opportunity costs as anticipated in the definition of best use in Exhibit 5.
4. Fair market value may take the premise that existing leases will run out their term while most probable price may reflect a probability of renegotiation between landlord and tenant for mutual benefit or background information which makes it impossible for the status quo to persist.
 - a. Check Dunn and Bradstreet on the tenants
 - b. Analyze reported sales volume relative to breakeven point
 - c. Analyze opportunity cost of the status quo

COFFEE BREAK

EXHIBIT 5

DEFINITION OF HIGHEST AND BEST USE

That reasonable and probable use that will support the highest present value, as defined, as of the effective date of the appraisal.

Alternatively, that use, from among reasonably probable and legal alternative uses, found to be physically possible, appropriately supported, financially feasible, and which results in highest land value.

The definition immediately above applies specifically to the highest and best use of land. It is to be recognized that in cases where a site has existing improvements on it, the highest and best use may very well be determined to be different from the existing use. The existing use will continue, however, unless and until land value in its highest and best use exceeds the total value of the property in its existing use. See Interim Use.

Implied within these definitions is recognition of the contribution of that specific use to community environment or to community development goals in addition to wealth maximization of individual property owners. Also implied is that the determination of highest and best use results from the appraiser's judgment and analytical skill, i.e., that the use determined from analysis represents an opinion, not a fact to be found. In appraisal practice, the concept of highest and best use represents the premise upon which value is based. In the context of most probable selling price (market value) another appropriate term to reflect highest and best use would be most probable use. In the context of investment value an alternative term would be most profitable use.

Source: Byrl N. Boyce, Real Estate Appraisal Terminology, Revised Edition, AIREA, SREA, Ballinger, Cambridge, Mass., 1981, p. 107-108.

FEASIBILITY OF ALTERNATIVE USES

	<u>Scenario 1</u>	<u>Scenario 2</u>	<u>Scenario 3</u>	<u>Scenario 4</u>	<u>Scenario 5</u>	<u>Scenario 6</u>
<u>Feasibility Factor</u>	<u>Return to Former Use</u>	<u>Purchase by Welfare Agency</u>	<u>Conversion to Class B/C Office</u>	<u>Conversion to Apartments with Office on 1st Floor</u>	<u>Conversion to Apartments with Existing Bar</u>	<u>Demolition and Sale of Site</u>
Market Demand Risks	Demand very elastic relative to price unless room rates subsidized by welfare agencies	Welfare agencies lack capital resources to purchase and remodel facilities, given the absence of government funding	Office market becoming more price sensitive; would not accept neighborhood and lack of parking unless rents were lower than necessary to support remodeling	Strong demand for spacious two bedroom units in CBD area	Though there is a strong demand for affordable downtown housing, consumer survey shows tenant reluctance to live above noisy/potentially malodorous bar-restaurant	Soft market for vacant sites which cannot be assembled into larger plot-tage; parking revenues from 20 spaces inadequate to carry clearance costs
Legal/Political Acceptability	Inconsistent with long term City goals for Olin Place	Mixed acceptability as interim use as housing for transient males by some groups; favored by welfare advocates and disfavored by local residents	Neighborhood resistance to increased demand for street parking	Preferred use, given need for downtown housing and political statements by alderpersons for reduction of bar business in residential neighborhoods	Preferred use for housing is compromised by existing bar management agreement	Inconsistent with constituency favoring landmark designation
Technical Construction Problems and Capital Cost Risks	Failure to repair within one year may have jeopardized grandfathered non-conforming building conditions. Otherwise this use has lowest construction risks of Scenarios 1 through 5	Capital costs of renovation to state standards excessive for short term use	Variance needed for parking requirement of 1 stall per 300 SF to 1 stall per 2,500 SF of office space	Spacious apartments with views provide favorable rent/cost per SF ratio--housing code creates more remodeling risk than commercial code	Apartment mix cheapened by retaining existing bar operation--smaller units require more plumbing and bring less favorable rent/cost per SF ratio	None
Relative Investment Power Based Upon Revenue Generation Potential	\$192,765	\$120,380	\$80,331	\$103,220	(\$10,513)	\$13,778
Special Income Tax Advantages or Public Subsidies Available	None	None	Rehabilitation tax credit of 20% for older commercial building conversion plus possible industrial bond financing	Possible historic landmark status for 25% rehabilitation tax credit plus tax incremental financing (TIF) assistance	Possible historic landmark status for 25% rehabilitation tax credit. TIF less likely because increase in tax is smaller	None
Real Estate Tax Consequences to City	Modest increase in assessed value	Loss of \$194,300 tax base with tax-exempt agency as owner	Real estate tax base would be multiplied approximately 3 times the present assessment	Real estate tax base would be multiplied approximately 3 1/2 times the present assessment	Real estate tax base would be multiplied approximately 2 1/2 times the present assessment	Loss of approximately \$140,000 of tax base

EXHIBIT 6

EXHIBIT 7

**DEMONSTRATION OF SELECTION OF BEST USE SCENARIO FOR
VACANT OFFICE TOWER REQUIRING
COMPLETE MECHANICAL RENOVATION**

B. Alternative Uses for Private Square

A combination of the physical characteristics of the property and the general demand characteristics of the Hilldale area suggest the following alternative scenarios for use of the subject property (Appendix D):

Scenario #1: The building would be remodeled into multi-tenant office space of class A on floors 4 to 14 and class B on floors 1 to 3.

Scenario #2: The building would be modified into residential apartments on floors 4 to 14 and class B office space on floors 1 to 3.

Scenario #3: The building would be modified into residential condominiums on floors 4 to 14 and class B office space on floors 1 to 3.

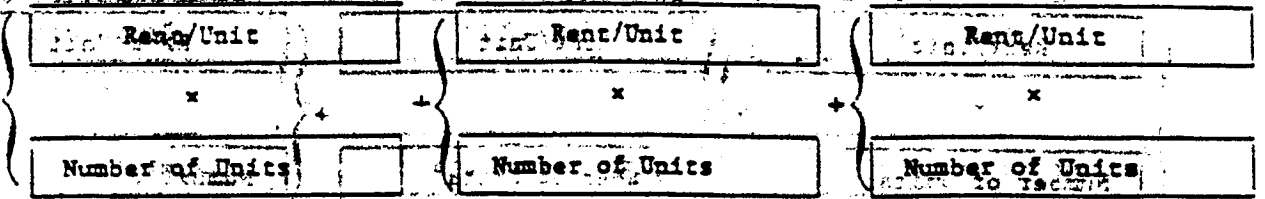
Scenario #4: The building would be modified into a hotel facility with hotel rooms on floors 4 to 14, a restaurant on floor 3, and seminar and office space on the remainder.

C. Economic Ranking of Alternatives

The alternative uses that might be plausible for the subject property can first be ranked in terms of the general budget parameters inherent in revenues and expenses for each. The best financial alternatives must then be screened for effective demand, political acceptability, and risk. In order to reveal the general range of justified investment on the existing property, the appraiser developed a logic of converting rents to justified investment by determining a market rent for each use and assuming an acceptable cash breakeven point¹ for financial planning and budgeting. This process capitalizes funds available for debt service or cash dividends into amounts of justified investment. This residual approach can be misleading if there are small errors in the cash-flow forecast, but if estimating bias is consistent when applied to the alternative uses, it does rank the alternatives in terms of their ability to pay for the subject property as is. The logic of this process is provided in Exhibit 15; the cost assumptions and calculations are provided in Appendix D.

¹ The ratio of cash expenses, real estate taxes, and debt service to potential gross income.

BASIC LOGIC FOR RANKING ALTERNATIVE PROGRAM SCENARIOS BY JUSTIFIED
TOTAL PURCHASE BUDGET



1-Default Point

Operating Expenses

Equity Cash Margin

Capital Replacement

Vacancy Loss

Real Estate Taxes

Reserve for Contingency

Cash Available for Debt Service

Cash Throw-Off (B/4 Tax)

Mortgage Constant

Equity Cash Constant

Justified Equity (B/4 Tax Effect)

Justified Mortgage

Total Justified Project Budget

Construction Outlays

Budget for Purchase

A summary of these calculations from the Appendix are provided in Exhibit 16. A preliminary ranking based on a cash-justified investment (Line 3, Exhibit 16), without regard to future reversion value, demonstrates that Scenario 1 is the preferable use of the structure as is.

D. Ranking of Alternatives

In terms of estimating risks, Scenario 1 offers more certainty in regard to construction budget because multi-tenant office use is more similar to the previous use. Less extensive remodeling plans imply that fewer problems will arise. In Scenarios 2, 3, and 4, all new plumbing facilities and windows are required for floors 4 to 14. The same improvements simply need refurbishing if the building remains office use. In addition, the market for a high-rise residential or hotel facility is largely untested in the Hilldale area, but office use has been expanding. A change from office use of Pyare Square carries business risks that are difficult to ascertain, and the costs incurred in those risks could be great.

E. Political Compatibility of Alternatives

According to the village administrator of Shorewood Hills, all four of the scenarios would be politically acceptable because the village wants to see improvement of the building. However, Scenarios 2, 3, and 4 require a zoning change that must be approved by the village—an effort that is likely to be more time-consuming than futile.

Although condominiums are a relatively new idea to Shorewood Hills, the community boasts of being a residential suburb, and so a well-conceived plan should pass the board. A hotel use, however, is questionable and would be subject to serious scrutiny because demand is not evident. Office use appears to be most probable in light of the fact that costs are lower, zoning is proper, and demand is evident.

F. Conclusions

Since the estimated residual justified purchase prices of Scenarios 1 and 3 are fairly close, the choice in determining the most probable fitting use relates to the higher costs of converting to residential coupled with the risks involved in tapping an untested market. A prudent investor would seek to stabilize his income by choosing the less speculative scenario. A review of the summary feasibility data in Exhibit 17 supports the conclusion that the most probable use of the subject property in the opinion of the appraiser is Scenario 1.

The most probable use of the subject property would be renovation to a multi-tenant office building.

EXHIBIT 16

SUMMARY OF BUDGETS FOR ALTERNATIVE USE SCENARIOS

Budget Item	Scenario #1	Scenario #2	Scenario #3	Scenario #4
1. Cost to construct	(2,509,975)	(2,414,225)	(2,668,140)	(2,569,600)
2. Justified investment for property as is	2,897,566	1,409,513	2,868,983	(4,662,172)
3. Total justified investment in subject property as is	387,591	(1,004,712)	200,843	(7,231,772)

EXHIBIT 7 (Continued)

EXHIBIT 17

SUMMARY MATRIX OF FEASIBILITY OF ALTERNATIVE USES

Feasibility Factor	Scenario #1	Scenario #2	Scenario #3	Scenario #4
Justified Investment in subject	387,600	Negative	200,843	Negative
Remodeling Risks	Moderate	Significant	Significant	Serious
Effective Market demands	Positive	Positive	Questionable	Soft
Political acceptability	Strong	Strong	Strong	Mixed
Financial Risk	Depends on marketing ability in projecting new image for the building	Depends on desire to live in a high-rise	Depends on desire to own a home in a high-rise	Financial risk is great-- Hilldale is not a major office center nor a stop for travellers.

EXHIBIT 7 (Continued)

CONTEMPORARY ISSUES AND METHODS FOR
APPRAISING COMMERCIAL PROPERTIES
(Continued)

11. DECISION THEORY AND IMPROVED METHODS FOR THE
MARKET COMPARISON APPROACH

There are a number of basic books on decision theory which the appraiser should read to better understand alternative appraisal models available in the age of the micro computer. One such book is The Complete Problem Solver, by John R. Hayes, Franklin Institute Press, Philadelphia, PA, 1981. It is useful to look at the problem of market comparison approaches to value as a decision model in the complex world where a limited number of facts have to be focused on the problem.

- A. Hayes described four general types of decisions which require different decision procedures.
 1. Decisions under certainty
 2. Decisions under risk
 3. Decisions under uncertainty
 4. Decisions under conflict
- B. Many appraisal decision systems are modeled under the methods in Exhibit 8. (Page 157)
- C. Hayes distinguishes between risk where we can calculate probability, such as gambling, or uncertainty where there is an element of chance which can't be calculated. Decisions under conflict are like moves in chess or strategy where the outcome must anticipate countermoves by other players in the game. Appraisal pricing decisions are either decisions under certainty or decisions under conflict. Between sharp distinctions for risk and uncertainty, there is a broad area in which we operate under judgmental probability.
- D. A guide for the bewildered decisionmaker can be found by answering the following questions relative to the decision tree in Exhibit 9.

1. Is this a decision under certainty?
 2. Does it involve costly search?
 3. Is this a decision under conflict?
 4. Can you estimate the relevant probabilities with reasonable accuracy?
 5. Does the decision involve catastrophic outcomes?
- E. Appraisal decision theory for economic behavior fits the theory of "bounded rationality" which describes economic decision processes today. A short definition of bounded rationality is included in Exhibit 10.
- F. Market inference is the preferred method of valuation if we can discover a pricing pattern in the random dots of properties and transactions. The search for pattern must also be consistent with appraisal protocol.
1. Valuation directly from a regression formula violates appraisal protocol if the appraiser has not inspected all of the comparables used, because the subject property is compared to a hypothetical mean property from the set of observations, and because the appraiser is not directly responsible for the selection or weights given the attributes selected as the basis of comparison. Moreover, the amount of data points were limited relative to the number of variables which were thought to be relevant so that the risk characteristic of statistical variance were also suspect.
 2. Market comparison is set theory using a limited number of subjectively selected properties in a relatively objective comparison on a few factors thought to be highly correlated to prices paid. An additive weighting system is one method for managing the information integration for a market comparison.

- G. One influential method is to develop a pricing algorithm which provides an estimated price for each comparable and then presumes the same algorithm can be applied to the subject property. The steps involved are as follows:
1. Adjust prices for terms of sale and time on comparable properties. Comparable properties would be those bought for renovation, or for the owners own use, etc. You may choose to abstract out land values where size or locational quality is significantly different.
 2. Selecting a proper unit of comparison
 3. Developing a hierarchy of significant attributes thought to affect price and scoring each property on a point system
 4. Developing a weighting system to rank the relative importance of ordinal attribute scores on a cardinal scale
 5. Developing a price per weighted point per unit of comparison
 6. Testing the price weighting formula for best estimate of the sales price of actual comparables in order to minimize dispersion and variance between actual price and price estimated by formula
 7. Application of a price per point formula to the subject property to estimate range of alternative prices
 8. Adjustment of predicted price for unique externalities such as land, financing, or non-transferable license
- H. Search for an appropriate unit of comparison as a single variable in a linear regression by trying three or four unit concepts, such as: (See Exhibit 11.)
1. Gross building area
 2. Net leasable area

3. Cubage
 4. Two times the first floor area plus gross building area
 5. Barrels of cranberries rather than acres of cranberries
 6. Number of bedrooms rather than square feet
- I. Arrive at a price per unit as the first step in establishing a price algorithm
- J. Identify property attributes which distinguish subject properties qualitatively from one another and develop a simple scoring system
1. 5-3-1 is one method, but scores may become multipliers and lead distortion
 2. Dilmore prefers:

<u>Rating</u>	<u>Points</u>
Excellent	26
Good	20
Average	15
Fair	13
Poor	10
- K. See selection of examples in Exhibits 11 through 24.
- L. The market comparison approach presumes that the appraiser can match sales price to the real estate interest required and the productivity anticipated by the buyer and the seller or that differences in each transaction can be factored out.
1. Litigation always involves kid stuff arguments involving gross rent multipliers where rents include or exclude utilities, furnishings, and window air conditioners.
 2. In recent years cash equivalency adjustments for seller financing have further distorted the growth or adjusted sales price.

3. More subtle are the sales prices which are engineered by accountants and lawyers to shift asset values among asset classifications for land, structure, inventory, control of management contracts, accounting periods for related parties for tax purposes, public accounting figures, or balance sheet diplomacy.
 4. The public is further confused by engineered sales prices to support syndication prospecti of \$90 million on a single office building which was also appraised for \$35 million in the same month for taxes.
 5. Market comparable sales are suspect when one party names the price if the other names the terms; the appraiser has adapted his style so that the customer names the value and the appraiser gets to define the real estate interests appraised and the limiting conditions which control the relevancy and reality of his report.
 6. Discounted cash flows defined by proper accounting become a more sensitive and more realistic appraisal tool than the market comparison method.
- M. The traditional normalized net operating income divided by the cap rate should be recognized as a market comparison approach of the income multiplier family. There are imaginary "cap rates" out there, the reciprocals of price earnings ratios, which benchmark prices, but should not be confused with a true income approach.
1. Appraisers must be careful not to confuse thumbnail benchmarks for valuation procedures and never confuse market multipliers with contemporary income simulation methods.
 2. There is a danger that appraisers use street talk and conventional wisdom as a market determined rate as in "Phoenix is a 9 percent cap rate town, or "Indianapolis has a net income multiplier of 9-1/2." These are applied without sensitivity to differences among properties or sensitivity to present values.

EXHIBIT 8

DECISION MAKING METHODS
UNDER CERTAINTY

Method	Type	Use this method:	Cost of computation required	Number of alternatives examined
Dominance	optimizing	for preliminary screening of alternatives	low	all
Lexicography	optimizing	when attributes are very different in weight	very low	all
Additive Weighting	optimizing	when it is important to find the best alternative	high	all
Effectiveness Index	optimizing	when it is very important to get best alternative	very high	all
Satisficing	non-optimizing	when the cost of examining the whole set of alternatives is very high	very low	some

Source: John R. Hayes, The Complete Problem Solver, 1981, The Franklin Institute Press, Philadelphia, PA, p. 157.

EXHIBIT 9

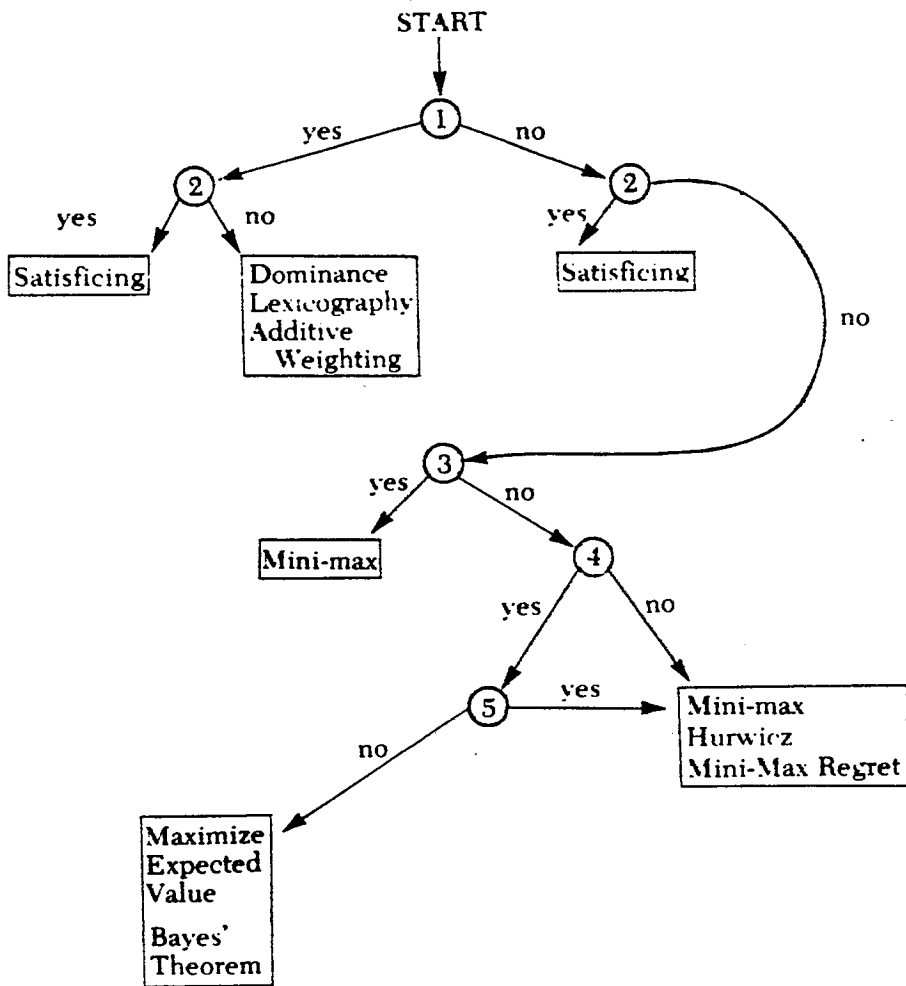


Figure 2. A Decision Tree for Choosing a Decision Procedure

Source: John R. Hayes, The Complete Problem Solver, 1981,
The Franklin Institute Press, Philadelphia, PA, p. 180.

EXHIBIT 11
CORRELATION COEFFICIENTS AND R² OF SALES PRICE

Space Unit	Correlation	R ²
First floor frontage (frc)	0.745	55.5%
Lot area	0.908	82.4
First floor (1st fl)	0.790	62.4
First floor + Upper floors (upp fl)	0.933	87.0
1st fl + .05 (upp fl)	0.919	84.5
2(1st fl) + upp fl	0.919	84.5
(1st fl) x (frc)	0.784	61.5
[1st fl + 0.5 (upp fl)] x (frc)	0.864	74.6
[2(1st fl) + upp fl] x (frc)	0.864	74.6
(1st fl + upp fl) x (frc)	0.874	76.4

RATGRAM STYLE

WOOLWORTH BUILDING
 SCALE FOR SCORING COMPARABLES ON
 IMPORTANT INVESTOR CONSIDERATIONS FOR
 OFFICE - RETAIL SPACE IN MADISON
 C-4 ZONING

LOCATION
 10%

5 = High visibility
 3 = Corner visibility limited
 1 = Inside lot

EXPANSION POTENTIAL
 30%

5 = Potential for significant
 increases of floor space
 3 = Flexible layouts due to
 bay spacing and elevator
 position
 1 = Inflexibility of layout due
 to old bearing walls and
 elevator shafts

CONDITION AT
 TIME OF PURCHASE
 25%

5 = Fully renovated and leased
 3 = Long-term retail leases in
 place. Serviceable as retail
 in tired space.
 1 = Vacant and in need of total
 rehabilitation. Short-term
 lease or large vacancy in
 need of total rehabilitation.

ELEVATORS AT
 TIME OF PURCHASE
 20%

5 = Two passenger and freight
 3 = Two passenger
 1 = One passenger

FENESTRATION ON UPPER LEVEL
 15%

5 = Large windows facing
 the Square
 3 = Limited window area
 1 = No windows

WOOLWORTH BUILDING
 WEIGHTED MATRIX FOR COMPARABLE PROPERTIES
 SCORE/WEIGHTED SCORE

ATTRIBUTE	WEIGHT	COMPARABLE NO. 1 30 N. CARROLL WOLFF KUBLY	COMPARABLE NO. 2 14 W. HIFFLIN	COMPARABLE NO. 3 5 & 7 E. HIFFLIN CENTRE SEVEN	COMPARABLE NO. 4 50 E. HIFFLIN EMPORIUM	COMPARABLE NO. 5 2 W. HIFFLIN WOOLWORTH	SUBJECT
LOCATION	10%	3/0.30	1/0.10	1/0.10	3/0.30	5/0.50	5/0.50
EXPANSION POTENTIAL AT TIME OF SALE	30%	3/0.90	1/0.30	1/0.30	5/1.50	3/0.90	3/0.90
CONDITION AT TIME OF SALE	25%	1/0.25	5/1.25	1/0.25	3/0.75	3/0.75	1/0.25
ELEVATORS IN PLACE	20%	5/1.00	3/0.60	1/0.20	3/0.60	1/0.20	1/0.20
FENESTRATION ON UPPER FLOORS	15%	1/0.15	5/0.75	5/0.75	1/0.15	3/0.45	3/0.45
TOTAL WEIGHTED SCORE	100%	2.60	3.00	1.60	3.30	2.80	2.30
ADJUSTED SELLING PRICE (1)		\$625,000	\$750,000	\$240,000	\$850,000	\$662,500	
DATE OF SALE		7/17/80	2/27/84	12/31/77	4/30/78	7/31/78	
GROSS BUILDING AREA (GBA)		41,000 SF	40,000 SF	26,000 SF	42,500 SF	39,000 SF	39,000 SF
ADJUSTED PRICE/GBA		\$15.24	\$18.75	\$ 9.23	\$20.00	\$16.99	
ADJUSTED PRICE/GBA/ WEIGHTED POINT SCORE		\$5.86	\$6.25	\$5.77	\$6.06	\$6.08	

(1) See Appendix _ for assumptions and calculations to determine adjusted selling price.

EXHIBIT 13
RATGRAM STYLE

Attributes = 5

Attribute Names, Prelim. Weights
LOCATION 20
EXPANSION POTENTIAL 20
CONDITION AT TIME OF SALE 20
ELEVATORS IN PLACE 20
PENESTRATION ON UPPER FLOORS 20

of Observations = 5

Observ. # 1 WOLFF-KUBLY-30 N. CARROLL Price 19.36
 LOCATION 3
 EXPANSION POTENTIAL 3
 CONDITION AT TIME OF SALE 1
 ELEVATORS IN PLACE 5
 PENESTRATION ON UPPER FLOORS 1

Observ. # 2 14 9. RIFFLIN Price 18.75
 LOCATION 1
 EXPANSION POTENTIAL 1
 CONDITION AT TIME OF SALE 5
 ELEVATORS IN PLACE 3
 PENESTRATION ON UPPER FLOORS 5

Observ. # 3 CENTRE SEVEN-5 & 7 N. PINCKNEY Price 9.23
 LOCATION 1
 EXPANSION POTENTIAL 1
 CONDITION AT TIME OF SALE 1
 ELEVATORS IN PLACE :
 PENESTRATION ON UPPER FLOORS 5

Observ. # 4 EMPORIUM-50 E. RIFFLIN Price 20
 LOCATION 3
 EXPANSION POTENTIAL 5
 CONDITION AT TIME OF SALE 3
 ELEVATORS IN PLACE 3
 PENESTRATION ON UPPER FLOORS 1

Observ. # 5 WOOLWORTH-2 W. RIFFLIN Price 16.99
 LOCATION 5
 EXPANSION POTENTIAL 3
 CONDITION AT TIME OF SALE 3
 ELEVATORS IN PLACE 1
 PENESTRATION ON UPPER FLOORS 3

The Matrix:

20	20	20	20	20
10	10	10	10	10
15	15	15	15	15
25	25	25	25	25
30	30	30	30	30

Median = 5.861538
 Mean = 5.913963
 Standard Deviation = .5837666

Weights:
 LOCATION = 20
 EXPANSION POTENTIAL = 20
 CONDITION AT TIME OF SAL = 20
 ELEVATORS IN PLACE = 20
 PENESTRATION ON UPPER FL = 20

Final Results:
 Number of Combinations = 3125
 Number of Combinations Adding to 100% = 381

Median = 6.060606
 Mean = 6.00175
 Standard Deviation = .1893679

Weights:
 LOCATION = 10
 EXPANSION POTENTIAL = 30
 CONDITION AT TIME OF SAL = 25
 ELEVATORS IN PLACE = 20
 PENESTRATION ON UPPER FL = 15

WOOLWORTH - RATGRAM STYLE
2nd RUN

Attributes = 5

Attribute Names, Prelim. Weights

- LOCATION 20
- EXPANSION POTENTIAL 20
- CONDITION AT TIME OF SALE 20
- ELEVATORS IN PLACE 20
- PENESTRATION ON UPPER FLOORS 20

of Observations = 5

Observ. # 1 WOLFF-KUELY-30 N. CARROLL Price 15.26

- LOCATION 3
- EXPANSION POTENTIAL 3
- CONDITION AT TIME OF SALE 1
- ELEVATORS IN PLACE 5
- PENESTRATION ON UPPER FLOORS 1

Observ. # 2 14 W. MIFFLIN Price 18.75

- LOCATION 1
- EXPANSION POTENTIAL 1
- CONDITION AT TIME OF SALE 5
- ELEVATORS IN PLACE 3
- PENESTRATION ON UPPER FLOORS 5

Observ. # 3 CENTRE SEVEN-5 & 7 N. PINKNEY Price 9.23

- LOCATION 1
- EXPANSION POTENTIAL :
- CONDITION AT TIME OF SALE 1
- ELEVATORS IN PLACE :
- PENESTRATION ON UPPER FLOORS 5

Observ. # 4 EMPORIUM-50 E. MIFFLIN Price 20

- LOCATION 3
- EXPANSION POTENTIAL 5
- CONDITION AT TIME OF SALE 3
- ELEVATORS IN PLACE 3
- PENESTRATION ON UPPER FLOORS 1

Observ. # 5 WOOLWORTH-2 W. MIFFLIN Price 16.99

- LOCATION 5
- EXPANSION POTENTIAL 3
- CONDITION AT TIME OF SALE 3
- ELEVATORS IN PLACE 1
- PENESTRATION ON UPPER FLOORS 3

The Matrix:

10	30	25	20	15
0	20	15	10	5
5	25	20	15	10
15	35	30	25	20
20	40	35	30	25

Median = 6.060606
 Mean = 6.00175
 Standard Deviation = .1893479

Weights:

- LOCATION = 10
- EXPANSION POTENTIAL = 30
- CONDITION AT TIME OF SAL = 25
- ELEVATORS IN PLACE = 20
- PENESTRATION ON UPPER PL = 15

Final Results:

Number of Combinations = 3125
 Number of Combinations Adding to 100% = 381

Median = 6.060606
 Mean = 6.00175
 Standard Deviation = .1893479

Weights:

- LOCATION = 10
- EXPANSION POTENTIAL = 30
- CONDITION AT TIME OF SAL = 25
- ELEVATORS IN PLACE = 20
- PENESTRATION ON UPPER PL = 15

EXHIBIT 15

WOOLWORTH - RATGRAM STYLE

CALCULATION OF MOST PROBABLE PRICE USING
MEAN PRICE PER POINT EQUATION METHOD

COMPARABLE PROPERTY	SELLING PRICE PER SF OF GBA	POINT SCORE	PRICE PER SF OF GBA/ TOTAL WEIGHTED SCORE (x)
1	\$15.24	2.60	\$5.86
2	18.75	3.00	6.25
3	9.23	1.60	5.77
4	20.00	3.30	6.06
5	16.99	2.80	<u>6.08</u>
TOTAL			<u>\$30.02</u>

Total of Price Per SF of GBA = \$30.02
Total Weighted Score

Mean Value (\bar{x}) = 30.02/5 = \$6.00

Standard Deviation = $\sqrt{\frac{\sum (x-\bar{x})^2}{n-1}}$ = \$0.19 where:

x	\bar{x}	$(x-\bar{x})$	$(x-\bar{x})^2$	n	n-1
\$5.86	\$6.00	= -\$0.14	0.0196	5	4
6.25	6.00	= 0.25	0.0625		
5.77	6.00	= - 0.23	0.0529		
6.06	6.00	= 0.06	0.0036		
6.08	6.00	= 0.08	<u>0.0064</u>		
			0.1450		

$$\sqrt{\frac{0.1450}{4}} = \sqrt{0.03625} = 0.190394 \text{ or } \$0.19$$

EXHIBIT 15 (Continued)

Value Range of Price/Point Score: $\$6.00 \pm \0.19

Since GBA of subject is 39,000 square feet and total weighted point score of subject is 2.3, then:

High

Estimate: $\$6.19 \times 2.3 \times 39,000 \text{ SF} = \$555,243$ or $\$560,000$
(\$14.23/SF)

Central

Tendency: $\$6.00 \times 2.3 \times 39,000 \text{ SF} = \$538,200$ or $\$540,000$
(\$13.80/SF)

Low

Estimate: $\$5.81 \times 2.3 \times 39,000 \text{ SF} = \$521,159$ or $\$520,000$
(\$13.36/SF)

JUSTIFICATION OF COMPARABLE PRICE FORMULA FOR
 WOOLWORTH BUILDING
 BY MEANS OF ANALYSIS OF VARIANCE OF ACTUAL SALE PRICE VS. PREDICTED PRICE
 OF COMPARABLES USING MEAN PRICE PER POINT EQUATION METHOD

NO.	COMPARABLE PROPERTY	WEIGHTED POINT SCORE	MEAN PRICE PER POINT SCORE	PREDICTED PRICE/ SF GBA	ACTUAL PRICE/ SF GBA	VARIANCE	% OF VARIANCE TO ACTUAL PRICE
1	WOLFF KUBLY 30 N. Carroll Street	2.60	86.00	\$15.60	\$15.24	\$ 0.36	2.4%
2	14 W. Hifflin Street	3.00	6.00	18.00	18.75	- 0.75	4.0
3	CENTRE SEVEN 5 & 7 N. Pinckney Street	1.60	6.00	9.60	9.23	0.37	4.0
4	DIPORTUM 50 E. Hifflin Street	3.30	6.00	19.80	20.00	- 0.20	1.0
5	WOOLWORTH 2 W. Hifflin Street	2.80	6.00	16.80	16.99	- 0.19	1.1
NET VARIANCE						\$ - 0.41	

RATGUM STYLE

EXHIBIT 16

WOOLWORTH BUILDING
 SCALE FOR SCORING COMPARABLES ON
 IMPORTANT INVESTOR CONSIDERATIONS FOR
 OFFICE - RETAIL SPACE IN MADISON
 C-4 ZONING
 DILMORE STYLE

LOCATION
 15%

26 = High visibility
 15 = Corner visibility limited
 10 = Inside lot

EXPANSION POTENTIAL
 30%

26 = Potential for significant
 increases of floor space
 15 = Flexible layouts due to
 bay spacing and elevator
 position
 10 = Inflexibility of layout due
 to old bearing walls and
 elevator shafts

CONDITION AT
 TIME OF PURCHASE
 40%

26 = Fully renovated and leased
 15 = Long-term retail leases in
 place. Serviceable as retail
 in tired space.
 10 = Vacant and in need of total
 rehabilitation. Short-term
 lease or large vacancy in
 need of total rehabilitation.

ELEVATORS AT
 TIME OF PURCHASE
 15%

26 = Two passenger and freight
 15 = Two passenger
 10 = One passenger

WOOLWORTH BUILDING
 WEIGHTED MATRIX FOR COMPARABLE PROPERTIES
 SCORE/WEIGHTED SCORE
 DILMORE STYLE

ATTRIBUTE	WEIGHT	COMPARABLE NO. 1 30 N. CARROLL WOLFF KUBLY	COMPARABLE NO. 2 14 W. HIFFLIN	COMPARABLE NO. 3 5 & 7 E. HIFFLIN CENTRE SEVEN	COMPARABLE NO. 4 50 E. HIFFLIN EMPORIUM	COMPARABLE NO. 5 2 W. HIFFLIN WOOLWORTH	SUBJECT
LOCATION	15%	15/2.25	10/1.50	10/1.50	15/2.25	26/3.90	26/3.90
EXPANSION POTENTIAL AT TIME OF SALE	30%	15/4.50	10/3.00	10/3.00	26/7.80	15/4.50	15/4.50
CONDITION AT TIME OF SALE	40%	10/4.00	26/10.40	10/4.00	15/6.00	15/6.00	10/4.00
ELEVATORS IN PLACE	15%	26/3.90	15/2.25	10/1.50	15/2.25	10/1.50	10/1.50
TOTAL WEIGHTED SCORE	100%	14.65	17.15	10.00	18.30	15.90	13.90
ADJUSTED SELLING PRICE (1)		\$625,000	\$750,000	\$240,000	\$850,000	\$662,500	
DATE OF SALE		7/17/80	2/27/84	12/31/77	4/30/78	7/31/78	
GROSS BUILDING AREA (GBA)		41,000 SF	40,000 SF	26,000 SF	42,500 SF	39,000 SF	39,000 SF
ADJUSTED PRICE/GBA		\$15.24	\$18.75	\$ 9.23	\$20.00	\$16.99	
ADJUSTED PRICE/GBA • WEIGHTED POINT SCORE		\$1.04	\$1.09	\$0.92	\$1.09	\$1.07	

(1) See Appendix _ for assumptions and calculations to determine adjusted selling price.

Attributes = 5

WOOLWORTH - DILMORE STYLE
1st RUN

Attribute Names: Prelim. Weights

- LOCATION 20
- EXPANSION POTENTIAL 20
- CONDITION AT TIME OF SALE 20
- ELEVATORS IN PLACE 20
- FENESTRATION ON UPPER FLOORS 20

of Observations = 5

- Observ. # 1 WOLFF-KUBLY Price 15.26
 - LOCATION 15
 - EXPANSION POTENTIAL 15
 - CONDITION AT TIME OF SALE 10
 - ELEVATORS IN PLACE 26
 - FENESTRATION ON UPPER FLOORS 10
- Observ. # 2 14 W. MIFFLIN Price 18.75
 - LOCATION 10
 - EXPANSION POTENTIAL 10
 - CONDITION AT TIME OF SALE 26
 - ELEVATORS IN PLACE 15
 - FENESTRATION ON UPPER FLOORS 26
- Observ. # 3 CENTRE SEVEN Price 9.23
 - LOCATION 10
 - EXPANSION POTENTIAL 10
 - CONDITION AT TIME OF SALE 10
 - ELEVATORS IN PLACE 10
 - FENESTRATION ON UPPER FLOORS 26
- Observ. # 4 EMPORIUM Price 20
 - LOCATION 15
 - EXPANSION POTENTIAL 26
 - CONDITION AT TIME OF SALE 15
 - ELEVATORS IN PLACE 15
 - FENESTRATION ON UPPER FLOORS 10
- Observ. # 5 WOOLWORTH Price 16.99
 - LOCATION 26
 - EXPANSION POTENTIAL 15
 - CONDITION AT TIME OF SALE 15
 - ELEVATORS IN PLACE 10
 - FENESTRATION ON UPPER FLOORS 15

The Matrix:

20	20	20	20	20
10	10	10	10	10
15	15	15	15	15
25	25	25	25	25
30	30	30	30	30

Median = 1.048745
 Mean = 1.012559
 Standard Deviation = .1756356

Weights:

- LOCATION = 20
- EXPANSION POTENTIAL = 20
- CONDITION AT TIME OF SALE = 20
- ELEVATORS IN PLACE = 20
- FENESTRATION ON UPPER FL = 20

Final Results:

Number of Combinations = 3125
 Number of Combinations Adding to 100% = 381

Median = 1.068553
 Mean = 1.024281
 Standard Deviation = .1314307

Weights:

- LOCATION = 15
- EXPANSION POTENTIAL = 30
- CONDITION AT TIME OF SALE = 30
- ELEVATORS IN PLACE = 15
- FENESTRATION ON UPPER FL = 10

Attributes = 5

WOOLWORTH - DILMORE STYLE
2nd RUN

Attribute Names, Profile, Weights

- LOCATION 30
- EXPANSION POTENTIAL 20
- CONDITION AT TIME OF SALE 20
- ELEVATORS IN PLACE 20
- PENESTRATION ON UPPER FLOORS 20

of Observations = 5

- Observ. # 1 : WOLFF-KLEBY Price 15.24
 LOCATION 15
 EXPANSION POTENTIAL 15
 CONDITION AT TIME OF SALE 10
 ELEVATORS IN PLACE 26
 PENESTRATION ON UPPER FLOORS 10
- Observ. # 2 14 W. HIFFLIN Price 18.75
 LOCATION 10
 EXPANSION POTENTIAL 10
 CONDITION AT TIME OF SALE 26
 ELEVATORS IN PLACE 15
 PENESTRATION ON UPPER FLOORS 26
- Observ. # 3 CENTRE SEVEN Price 9.23
 LOCATION 10
 EXPANSION POTENTIAL 10
 CONDITION AT TIME OF SALE 10
 ELEVATORS IN PLACE 10
 PENESTRATION ON UPPER FLOORS 26
- Observ. # 4 EMPORIUM Price 20
 LOCATION 15
 EXPANSION POTENTIAL 26
 CONDITION AT TIME OF SALE 15
 ELEVATORS IN PLACE 15
 PENESTRATION ON UPPER FLOORS 10
- Observ. # 5 WOOLWORTH Price 16.99
 LOCATION 26
 EXPANSION POTENTIAL 15
 CONDITION AT TIME OF SALE 15
 ELEVATORS IN PLACE 10
 PENESTRATION ON UPPER FLOORS 15

The Matrix:

15	30	30	15	10
5	20	20	5	0
10	25	25	10	5
20	35	35	20	15
25	40	40	25	20

Median = 1.048553
 Mean = 1.024281
 Standard Deviation = .1314307

Weights:
 LOCATION = 15
 EXPANSION POTENTIAL = 30
 CONDITION AT TIME OF SALE = 30
 ELEVATORS IN PLACE = 15
 PENESTRATION ON UPPER FL = 10

Final Results:
 Number of Combinations = 3125
 Number of Combinations Adding to 100% = 381

Median = 1.048553
 Mean = 1.043607
 Standard Deviation = 7.084803E-02

Weights:
 LOCATION = 15
 EXPANSION POTENTIAL = 30
 CONDITION AT TIME OF SALE = 40
 ELEVATORS IN PLACE = 15

EXHIBIT 20

WOOLWORTH BUILDING
 CALCULATION OF MOST PROBABLE PRICE USING
 MEAN PRICE PER POINT EQUATION METHOD
 DILMORE STYLE

COMPARABLE PROPERTY	SELLING PRICE PER SF OF GBA	POINT SCORE	PRICE PER SF OF GBA/ TOTAL WEIGHTED SCORE (x)
1	\$15.24	14.65	\$1.04
2	18.75	17.15	1.09
3	9.23	10.00	0.92
4	20.00	18.30	1.09
5	16.99	15.90	<u>1.07</u>
TOTAL			\$5.21

Total of Price Per SF of GBA = \$5.21
Total Weighted Score

Mean Value (\bar{x}) = \$5.21 + 5 = \$1.04

Standard Deviation of the Mean = $\sqrt{\frac{\sum (x - \bar{x})^2}{n-1}}$ = \$0.07 where:

x	\bar{x}	$(x - \bar{x})$	$(x - \bar{x})^2$	n	n-1
\$1.04	\$1.04	=	\$0.00	5	4
1.09	1.04	=	0.05		
0.92	1.04	= -	0.12		
1.09	1.04	=	0.05		
1.07	1.04	=	0.03		
			<u>0.0009</u>		
			0.0203		

$\sqrt{\frac{0.0203}{4}} = \sqrt{0.005075} = 0.071239$ or \$0.07

EXHIBIT 20 (Continued)

Value Range of Price/Point Score: \$1.04 ± \$0.07

Since GBA of subject is 39,000 square feet and total weighted point score of subject is 13.90, then:

High
 Estimate: \$1.11 x 13.90 x 39,000 SF = \$601,731 or \$600,000
 (\$15.43/SF)

Central
 Tendency: \$1.04 x 13.90 x 39,000 SF = \$563,784 or \$560,000
 (\$14.46/SF)

Low
 Estimate: \$0.97 x 13.90 x 39,000 SF = \$525,837 or \$530,000
 (\$13.48/SF)

COMPARISON OF WOOLWORTH DEMONSTRATION -
 RATGRAM STYLE
 AND WOOLWORTH - DILMORE STYLE

	RATGRAM STYLE	DILMORE STYLE	% VARIANCE RATGRAM TO DILMORE
Estimated Value			
Central Tendency	\$540,000	\$560,000	3.7%

JUSTIFICATION OF COMPARABLE PRICE FORMULA FOR
 WOOLWORTH BUILDING
 BY MEANS OF ANALYSIS OF VARIANCE OF ACTUAL SALE PRICE VS. PREDICTED PRICE
 OF COMPARABLES USING MEAN PRICE PER POINT EQUATION METHOD
 DILMORE STYLE

NO.	COMPARABLE PROPERTY	WEIGHTED POINT SCORE	MEAN PRICE PER POINT SCORE	PREDICTED PRICE/ SF GBA	ACTUAL PRICE/ SF GBA	VARIANCE	% OF VARIANCE TO ACTUAL PRICE
1	WOLFF KUBLY 30 N. Carroll Street	14.65	\$1.04	\$15.24	\$15.24	\$ 0.00	0.0%
2	14 W. Mifflin Street	17.15	1.04	17.84	18.75	- 0.91	4.9
3	CENTRE SEVEN 5 & 7 N. Pinolmey Street	10.00	1.04	10.40	9.23	1.17	12.7
4	EMPORIUM 50 E. Mifflin Street	18.30	1.04	19.03	20.00	- 0.97	4.9
5	WOOLWORTH 2 W. Mifflin Street	15.90	1.04	16.54	16.99	- 0.45	2.6
NET VARIANCE						\$ - 1.16	

EXHIBIT 21

EXHIBIT 22

SCALE FOR SCORING COMPARABLE SALE ATTRIBUTES

Location 15%	5 = Corner lot with high visibility on major traffic artery 3 = Inside lot with low visibility on major traffic artery 1 = Inside lot with low visibility on secondary street
Investor Perception of Neighborhood Image 15%	5 = Strong identification with Square (within 1 block) or established commercial or residential area 3 = Neutral investor attitude 1 = General identification with deteriorated neighborhood
Structural Condition of Improvements 25%	5 = Fire-resistant construction, well maintained, operational, marketable 3 = Ordinary mill construction (brick bearing walls-wood beams), poorly maintained, needs mechanical work 1 = Boarded up and/or partially damaged or vandalized
Reuse Potential 30%	5 = Dominant commercial/retail reuse potential with anticipation of Landmark designation with 1981 tax laws applied 4 = Dominant commercial/retail reuse potential with anticipation of Landmark designation prior to 1981 tax law 3 = Residential reuse potential with 1981 tax laws applied 2 = Residential reuse potential prior to 1981 tax law 1 = Warehouse 0 = Improvements demolished leaving land only

EXHIBIT 22 (Continued)

Bargaining Position
of Seller
15%

- 5 = Income adequate to carry property or seller with strong asset position
- 3 = Little or no steady income but seller not known to be under financial pressures
- 1 = Building owner known to have financial pressures or multiple liens on property

WEIGHTED MATRIX FOR COMPARABLE PROPERTIES

FEATURE	WEIGHT	Rating/Weighted Rating							
		#1 Frautschi 215-219 King	#2 Sutherland Elec. 323 E. Wilson	#3 Fess Hotel 123 E. Doty	#4 Miller Horne 719 Williamson	#5 Miller Horne 722 Williamson	#6 Atrium 25 W. Pinckney	#7 Old Sorority 10 Langdon	Cardinal Hotel SUBJECT
Location	15%	3/ .45	5/ .75	5/ .75	3/ .45	3/ .45	1/ .15	3/ .45	5/ .75
Investor Perception of Neighborhood Image	15%	3/ .45	3/ .45	5/ .75	1/ .15	1/ .15	5/ .75	5/ .75	1/ .15
Structural Condition of Improvements at Time of Sale	25%	3/ .75	5/1.25	1/ .25	5/1.25	5/1.25	3/ .75	1/ .25	1/ .25
Reuse Potential	30%	4/1.2	1/ .30	4/1.2	2/ .60	4/1.2	4/1.2	4/1.2	5/1.5
Bargaining Position of Seller	15%	<u>5/ .75</u>	<u>3/ .45</u>	<u>1/ .15</u>	<u>3/ .45</u>	<u>1/ .15</u>	<u>1/ .15</u>	<u>1/ .15</u>	<u>3/ .45</u>
Total Point Score		3.6	3.2	3.1	2.9	3.2	3.0	2.8	3.1

	#1 Frantschi 215-219 King	#2 Sutherland Elec. 323 E. Wilson	#3 Fess Hotel 123 E. Doty	#4 Miller Horne 714 Williamson	#5 Miller Horne 722 Williamson	#6 Atrium 25 W. Finckney	#7 Old Sorority 10 Langdon
Nominal Sale Price	\$320,000	\$165,000	\$120,000	\$148,000	\$300,000	\$150,000	\$91,000
Date of Sale	November 1978	July 1979	January 1975	January 1979	November 1981	April 1977	July 1981
Terms of Sale	Land contract \$50,000 - down 270,000 - 2 yrs 10% Year 1 6% Year 2	Cash to seller	Land contract	Land contract \$23,000 down 125,000 @ 9 3/4% - 5 years	Land contract	\$100,000 cash 50,000 seller 2nd subordinated to construction loan	Cash to seller
Adjustment for:							
Terms of Sale	Discount 10%	No adjustment	5% Finder's fee for \$320,000 construction loan	Reduce to \$140,000	Discount 20% for creative financing	Discount 2nd-20%	None
Time of Sale (5%/year from 1/1/79 on)	Appreciate 17.5%	Appreciate 15%	Appreciate 17.5%	Appreciate 17.5%	Appreciate 2.5%	Appreciate 17.5%	Appreciate 5%
Adjusted Price for Terms and Time	\$338,400	\$189,750	\$121,500	\$164,500	\$246,000	\$164,500	\$95,550
Land Area	21,728 SF	8,221 SF	8,712 SF	8,712 SF	17,424 SF	8,712 SF	6,720 SF
Adjustment for Land Area Differences @ \$5.00/SF	(\$108,640)	(\$41,105)	(\$43,560)	(\$43,560)	(\$87,120)	(\$43,560)	(\$33,600)
Adjusted Price less Allowance for Land Value	\$229,760	\$148,645	\$77,940	\$120,940	\$158,880	\$120,940	\$61,950
Gross Building Area (GBA) (Square Feet)	21,000 SF	17,790 SF	9,330 SF	28,000 SF	30,000 SF	16,060 SF	10,500 SF
Adjusted Price per Square Foot of GBA	\$10.94/SF of GBA	\$8.36/SF of GBA	\$8.35/SF of GBA	\$4.32/SF of GBA	\$5.30/SF of GBA	\$7.53/SF of GBA	\$5.90/SF of GBA
Total Point Score	3.6	3.2	3.1	2.9	3.2	3.0	2.8
Price per Square Foot/Point Score	\$3.04	\$2.61	\$2.69	\$1.49	\$1.66	\$2.51	\$2.11

EXHIBIT 22 (Continued)

EXHIBIT 22 (Continued)

CALCULATION OF MOST PROBABLE PRICE USING
MEAN PRICE PER POINT EQUATION METHOD

Comparable Property	Adjusted Selling Price per SF of GBA	Weighted Point Score	<u>Price per SF</u> Weighted Point Score (x)
1	\$10.94	3.6	\$3.04
2	8.36	3.2	2.61
3	8.35	3.1	2.69
4	4.32	2.9	1.49
5	5.30	3.2	1.66
6	7.53	3.0	2.51
7	5.90	2.8	<u>2.11</u>
TOTAL			\$16.11

Central Tendency = $\frac{\sum x}{n} = \frac{16.11}{7} = 2.30$

Dispersion = $\sqrt{\frac{\sum (x-\bar{x})^2}{(n-1)}} = \sqrt{\frac{1.9417}{6}} = .569$

where:

x	\bar{x}	$(x-\bar{x})$	$(x-\bar{x})^2$	n	n-1
3.04	2.30	= .74	.5476	7	6
2.61	2.30	= .31	.0961		
2.69	2.30	= .39	.1521		
1.49	2.30	= .81	.6561		
1.66	2.30	= .64	.4096		
2.51	2.30	= .21	.0441		
2.11	2.30	= .19	.0361		
$\sum (x-\bar{x})^2$			= 1.9417		

EXHIBIT 22 (Continued)

Value range: $x \pm \text{dispersion} = 2.30 \pm .57$

Gross Weighted
Building x Point x (Central Tendency \pm Dispersion) =
Area Score

17,900 SF x 3.1 x (2.30 \pm .57) =

High Estimate of \$159,256 or \$160,000

Central Tendency of \$127,627 or \$130,000

Low Estimate of \$95,998 or \$100,000

All value estimates are rounded

EXHIBIT 23

COMPUTER OUTPUT OF DILMORE QUANTITATIVE
POINT WEIGHTING PROGRAM
AND
COMPUTERIZATION OF
ALL OF THE MARKET COMPARISON
CALCULATIONS

EXHIBIT 23 (Continued)

**** GOODWILL 3 ****

* Attributes = 5

Attribute Names, Prelim. Weights ← Preliminary weights selected by the appraisers

GROSS BUILDING AREA (GBA) 20

LOCATION 20

RATIO OF LAND TO GBA 20

EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 20

QUALITY OF HVAC SYSTEM 20

* of Observations = 6 ← Comparable sales with score for each comparable

- Observ. # 1 1115 O'NEILL ST Price 14.46

GROSS BUILDING AREA (GBA) 5

LOCATION 1

RATIO OF LAND TO GBA 3

EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 3

QUALITY OF HVAC SYSTEM 5
- Observ. # 2 2810 BRYANT ST Price 10.73

GROSS BUILDING AREA (GBA) 3

LOCATION 3

RATIO OF LAND TO GBA 1

EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 1

QUALITY OF HVAC SYSTEM 3
- Observ. # 3 901 WATSON AVE Price 10.81

GROSS BUILDING AREA (GBA) 1

LOCATION 5

RATIO OF LAND TO GBA 1

EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 1

QUALITY OF HVAC SYSTEM 3
- Observ. # 4 4401 COTTAGE GROVE RD Price 15.21

GROSS BUILDING AREA (GBA) 3

LOCATION 5

RATIO OF LAND TO GBA 5

EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 5

QUALITY OF HVAC SYSTEM 1
- Observ. # 5 4610-22 FERMITE RD Price 17.4

GROSS BUILDING AREA (GBA) 5

LOCATION 3

RATIO OF LAND TO GBA 3

EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 5

QUALITY OF HVAC SYSTEM 5
- Observ. # 6 3103 WATFORD WAY Price 14.94

GROSS BUILDING AREA (GBA) 5

LOCATION 5

RATIO OF LAND TO GBA 1

EFFICIENCY OF BUILDING DESIGN FOR STORAGE AND DISTRIBUTION 3

QUALITY OF HVAC SYSTEM 1

The Matrix:

20	20	20	20	20
10	10	10	10	10
15	15	15	15	15
25	25	25	25	25
30	30	30	30	30

← Test matrix to select optimal combination of weights

EXHIBIT 23 (Continued)

Median	= 4.565106	← Initial results using
Mean	= 4.528223	appraiser's weights
Standard Deviation	= .441591	

Weights:		← Appraiser's initial weights
GROSS BUILDING AREA (GBA)	= 20	
LOCATION	= 20	
RATIO OF LAND TO GBA	= 20	
EFFICIENCY OF BUILDING D	= 20	
QUALITY OF HVAC SYSTEM	= 20	

Final Results:		← Iterations to
Number of Combinations	= 3125	select optimal
Number of Combinations Adding to 100%	= 381	weight

Median	= 4.153846	← Final results using
Mean	= 4.175902	optimal weights
Standard Deviation	= 5.067353E-02	

Weights:		← Optimal weights
GROSS BUILDING AREA (GBA)	= 30	
LOCATION	= 30	
RATIO OF LAND TO GBA	= 10	
EFFICIENCY OF BUILDING D	= 10	
QUALITY OF HVAC SYSTEM	= 20	

Program Choices Are:

1. Enter/edit/display/file input data
2. Analyze quality point ratings
3. Display output to screen
4. Print output to printer
5. Select options
6. Quit

Enter your choice: ? 1

Load/edit file options Current disk file: None

1. Create new data file
2. Load existing disk file for editing
3. Display current data
4. Edit current data
5. Save current data to disk file
6. Clear (erase) all current data
7. Quit load/edit options, return to main program

Enter selection number:

Enter selection number: 1

Enter new data

Enter heading for output: INDUSTRIAL WAREHOUSE

Enter number of attributes: ? 5

Enter name for attribute: 1 ? GROSS BUILDING AREA (GBA)

Preliminary weight: 1 ? 20

Enter name for attribute: 2 ? LOCATION

Preliminary weight: 2 ? 20

Enter name for attribute: 3 ? RATIO OF LAND TO GBA

Preliminary weight: 3 ? 20

Enter name for attribute: 4 ? EFFICIENCY OF BUILDING DESIGN -

Preliminary weight: 4 ? 20

Enter name for attribute: 5 ? QUALITY OF HVAC SYSTEM

Weight for QUALITY OF HVAC SYSTEM is 20, so that total of weights is 100.

EXHIBIT 23 (Continued)

Enter number of observations? 6
 Do you want to <1> Enter a unit price or
 <2> Enter a total price & size
 Enter your choice? 1

Observation number 1 :
 Enter name 1 ? 1115 O'NEILL ST.
 Enter price 1 ? 14.46

Score for GROSS BUILDING AREA (GBA)? 5
 Score for LOCATION? 1
 Score for RATIO OF LAND TO GBA? 3
 Score for EFFICIENCY OF BUILDING DESIGN? 3
 Score for QUALITY OF HVAC SYSTEM? 5

Observation number 2 :
 Enter name 2 ? 2810 BRYANT ST.
 Enter price 2 ? 10.73

Score for GROSS BUILDING AREA (GBA)? 3
 Score for LOCATION? 3
 Score for RATIO OF LAND TO GBA? 1
 Score for EFFICIENCY OF BUILDING DESIGN? 1
 Score for QUALITY OF HVAC SYSTEM? 3

Observation number 3 :
 Enter name 3 ?

Score for QUALITY OF HVAC SYSTEM? 3

Observation number 3 :
 Enter name 3 ? 910 WATSON AVE.
 Enter price 3 ? 10.81

Score for GROSS BUILDING AREA (GBA)? 1
 Score for LOCATION? 5
 Score for RATIO OF LAND TO GBA? 1
 Score for EFFICIENCY OF BUILDING DESIGN? 1
 Score for QUALITY OF HVAC SYSTEM? 3

Observation number 4 :
 Enter name 4 ? 4401 COTTAGE GROVE RD.
 Enter price 4 ? 15.21

Score for GROSS BUILDING AREA (GBA)? 3
 Score for LOCATION? 5
 Score for RATIO OF LAND TO GBA? 5
 Score for EFFICIENCY OF BUILDING DESIGN? 5
 Score for QUALITY OF HVAC SYSTEM? 1

141126.0.

EXHIBIT 23 (Continued)

Observation number 5 :
Enter name 5 ?

Score for QUALITY OF HVAC SYSTEM? 1

1	Observation number 5 :
2	Enter name 5 ? 4610-22 FEMRITE RD.
3	Enter price 5 ? 17.40
4	Score for GROSS BUILDING AREA (GBA)? 5
5	Score for LOCATION? 3
6	Score for RATIO OF LAND TO GBA? 3
7	Score for EFFICIENCY OF BUILDING DESIGN? 5
8	Score for QUALITY OF HVAC SYSTEM? 5

9	Observation number 6 :
10	Enter name 6 ? 3103 WATFORD WAY
11	Enter price 6 ? 14.94
12	Score for GROSS BUILDING AREA (GBA)? 5
13	Score for LOCATION? 5
14	Score for RATIO OF LAND TO GBA? 1
15	Score for EFFICIENCY OF BUILDING DESIGN? 3
16	Score for QUALITY OF HVAC SYSTEM? 1

Enter subject property name:? INDUSTRIAL WAREHOUSE

Enter the name of the designated unit of comparison
(acre, square foot, etc.) ? SQUARE FOOT

Enter number of units of comparison for subject
(acres, square feet, etc.) ? 30195

Enter attribute scores for subject property

GROSS BUILDING AREA (GBA)	? 3
LOCATION	? 3
RATIO OF LAND TO GBA	? 1
EFFICIENCY OF BUILDING DESIGN?	? 1
QUALITY OF HVAC SYSTEM	? 5

14.12.6.0

EXHIBIT 23 (Continued)

Load/edit file options Current disk file: None

1. Create new data file
2. Load existing disk file for editing
3. Display current data
4. Edit current data
5. Save current data to disk file
6. Clear (erase) all current data
7. Quit load/edit options; return to main program

Enter selection number: 5

Enter name for data file: SAMPLE

Load/edit file options Current disk file: SAMPLE

1. Create new data file
2. Load existing disk file for editing
3. Display current data
4. Edit current data
5. Save current data to disk file
6. Clear (erase) all current data
7. Quit load/edit options; return to main program

Enter selection number: 3

Project title: INDUSTRIAL WAREHOUSE

Unit prices Search interval = 5

	GROSS	LOCAT	RATIO	EFFIC	QUALI	Price
Prel. wts.	20	20	20	20	20	-
1115 O'NEIL	5	1	3	3	5	\$14.46
2810 BRYANT	3	3	1	1	3	\$10.73
910 WATSON	1	5	1	1	3	\$10.81
4401 COTTAG	3	5	5	5	1	\$15.21
4610-22 FEM	5	3	3	5	5	\$17.40
3103 WATFOR	5	5	1	3	1	\$14.94
INDUSTRIAL	3	3	1	1	5	-

Press any key to continue

EXHIBIT 23 (Continued)

```

-----
      GP                          Version 2.1
-----

Program Choices Are:

1. Enter/edit/display/file input data
2. Analyze quality point ratings
3. Display output to screen
4. Print output to printer
5. Select options
6. Quit

-- Enter your choice? 2
-----

```

Pass # 1 Combination # 6

Standard deviation = .4693161 Mean = 4.497911

Status	GROSS	LOCAT	RATIO	EFFIC	QUALI	S.D.	Mean
Prelim. Wts.	20	20	20	20	0	.461591	4.528223

EXHIBIT 23 (Continued)

141126

QP

Version 2.1

Program Choices Are:

1. Enter/edit/display/file input data
2. Analyze quality point ratings
3. Display output to screen
4. Print output to printer
5. Select options
6. Quit

Enter your choice: ? 3

Display Output to Screen

Select output to be displayed:

1. Weighted matrix for properties
2. Value range determination: mean price per point method
3. Value range per unit of dispersion
4. Transaction zone: mean price per point method
5. Transaction zone: linear regression method
6. Mean price per point method: predicted vs. actual price for comparables
7. Linear regression method: predicted vs. actual price for comparables
8. Input data
9. Computation matrix

<Return> to quit

Enter your choice: 1

EXHIBIT 23 (Continued)

Feature/ Attribute	Weighted Matrix					GROSS BU LOCATION RATIO OF EFFICIEN QUALITY	Wtd. score
Initial weights	20	20	20	20	0		100
Final weights	30	30	10	10	20		100
1115 O'NEILL S	5/ 1.50	1/ 0.30	3/ 0.30	3/ 0.30	5/ 1.00		3.40
2810 BRYANT ST	3/ 0.90	3/ 0.90	1/ 0.10	1/ 0.10	3/ 0.60		2.60
910 WATSON AVE	1/ 0.30	5/ 1.50	1/ 0.10	1/ 0.10	3/ 0.60		2.60
4401 COTTAGE G	3/ 0.90	5/ 1.50	5/ 0.50	5/ 0.50	1/ 0.20		3.60
4610-22 FEMRIT	5/ 1.50	3/ 0.90	3/ 0.30	5/ 0.50	5/ 1.00		4.20
3103 WATFORD W	5/ 1.50	5/ 1.50	1/ 0.10	3/ 0.30	1/ 0.20		3.60
INDUSTRIAL WAR	3/ 0.90	3/ 0.90	1/ 0.10	1/ 0.10	5/ 1.00		3.00

Press any key to continue

EXHIBIT 23 (Continued)

Display Output to Screen

Select output to be displayed:

- 1. Weighted matrix for properties
- 2. Value range determination: mean price per point method
- 3. Value range per unit of dispersion
- 4. Transaction zone: mean price per point method
- 5. Transaction zone: linear regression method
- 6. Mean price per point method: predicted vs. actual price for comparables
- 7. Linear regression method: predicted vs. actual price for comparables
- 8. Input data
- 9. Computation matrix

<Return> to quit

Enter your choice: 2 (and 3)

Value Range Determination: Mean Price Per Point Method

Mean price per point: \$4.18
 Dispersion About the Mean: \$0.05
 Coefficient of Dispersion: 0.0121

Value Range Per Unit of Dispersion

	Subject Point Score		Mean (+/- One Standard Deviation)		Price Per Unit
Low Estimate	3.00	X	\$4.13	=	\$12.38
Central Tendency	3.00	X	\$4.18	=	\$12.53
High Estimate	3.00	X	\$4.23	=	\$12.68

Press any key to continue

EXHIBIT 23 (Continued)

Display Output to Screen

Select output to be displayed:

- 1. Weighted matrix for properties
- 2. Value range determination: mean price per point method
- 3. Value range per unit of dispersion
- 4. Transaction zone: mean price per point method
- 5. Transaction zone: linear regression method
- 6. Mean price-per point method: predicted vs. actual price for comparables
- 7. Linear regression method: predicted vs. actual price for comparables
- 8. Input data
- 9. Computation matrix

<Return> to quit

Enter your choice: 4

(and 5)

Transaction Zone: Mean Price Per Point Method

Number of units in subject property: 30195

Low Estimate	\$373,679	or	\$374,000
Central Tendency	\$378,274	or	\$378,000
High Estimate	\$382,869	or	\$383,000

Transaction Zone: Linear Regression Method

a = -7.505322E-02 Standard Error of the Forecast = .2056632
 b = 4.200016

Prediction equation: price =

$$30195 \text{ units} \times [-7.505322E-02 + (4.200016 \text{ +/- } .2056632) \times 3]$$

Low Estimate	\$359,562	or	\$360,000
Central Tendency	\$378,192	or	\$378,000
High Estimate	\$396,822	or	\$397,000

Press any key to continue

EXHIBIT 23 (Continued)

Display Output to Screen

Select output to be displayed:

1. Weighted matrix for properties
2. Value range determination: mean price per point method
3. Value range per unit of dispersion
4. Transaction zone: mean price per point method
5. Transaction zone: linear regression method
6. Mean price per point method: predicted vs. actual price for comparables
7. Linear regression method: predicted vs. actual price for comparables
8. Input data
9. Computation matrix

<Return> to quit

Enter your choice: 6

Mean Price Per Point Method: Predicted vs. Actual Price for Comparables

	Predicted Price	Actual price	Error
1115 O'NEILL ST.	\$14.20	\$14.46	-\$0.26
2810 BRYANT ST.	\$10.86	\$10.73	\$0.13
910 WATSON AVE.	\$10.86	\$10.81	\$0.05
4401 COTTAGE GROVE	\$15.03	\$15.21	-\$0.18
4610-22 FEMRITE RD	\$17.54	\$17.40	\$0.14
3103 WATFORD WAY	\$15.03	\$14.94	\$0.09

Press any key to continue

EXHIBIT 23 (Continued)

1

2

3

2. Display Output to Screen

Select output to be displayed:

- 1. Weighted matrix for properties
- 2. Value range determination: mean price per point method
- 3. Value range per unit of dispersion
- 4. Transaction zone: mean price per point method
- 5. Transaction zone: linear regression method
- 6. Mean price per point method: predicted vs. actual price for comparables
- 7. Linear regression method: predicted vs. actual price for comparables
- 8. Input data
- 9. Computation matrix

<Return> to quit
Enter your choice: 7

Linear Regression Method: Predicted vs. Actual Price for Comparables

	Predicted Price	Actual price	Error
1115 O'NEILL ST.	\$14.20	\$14.46	-\$0.26
2810 BRYANT ST.	\$10.84	\$10.73	\$0.11
910 WATSON AVE.	\$10.84	\$10.81	\$0.03
4401 COTTAGE GROVE	\$15.05	\$15.21	-\$0.16
4610-22 FEMRITE RD	\$17.57	\$17.40	-\$0.17
3103 WATFORD WAY	\$15.05	\$14.94	\$0.11

Press any key to continue

EXHIBIT 23 (Continued)

Display Output to Screen

Select output to be displayed:

1. Weighted matrix for properties
2. Value range determination: mean price per point method
3. Value range per unit of dispersion
4. Transaction zone: mean price per point method
5. Transaction zone: linear regression method
6. Mean price per point method: predicted vs. actual price for comparables
7. Linear regression method: predicted vs. actual price for comparables
8. Input data
9. Computation matrix

<Return> to quit

Enter your choice: 8

Project title: INDUSTRIAL WAREHOUSE

Unit prices Search interval = 5

	GROSS	LOCAT	RATIO	EFFIC	QUALI	Price
Prél. wts.	30	30	10	10	20	-
1115 O'NEIL	5	1	3	3	5	\$14.46
2810 BRYANT	3	3	1	1	3	\$10.73
910 WATSON	1	5	1	1	3	\$10.81
4401 COTTAG	3	5	5	5	1	\$15.21
4610-22 FEM	5	3	3	5	5	\$17.40
3103 WATFOR	5	5	1	3	1	\$14.94
INDUSTRIAL	3	3	1	1	5	-

Press any key to continue

EXHIBIT 23 (Continued)

Display Output to Screen

Select output to be displayed:

1. Weighted matrix for properties
2. Value range determination: mean price per point method
3. Value range per unit of dispersion
4. Transaction zone: mean price per point method
5. Transaction zone: linear regression method
6. Mean price per point method: predicted vs. actual price for comparables
7. ~~Linear regression method: predicted vs. actual price for comparables~~
8. Input data
9. Computation matrix

<Return> to quit

Enter your choice: 9

Computation Matrix

20	20	20	20	0
10	10	10	10	10
15	15	15	15	15
25	25	25	25	25
30	30	30	30	30

Press any key to continue

EXHIBIT 23 (Continued)

Display Output to Screen

Select output to be displayed:

- 1. Weighted matrix for properties
- 2. Value range determination: mean price per point method
- 3. Value range per unit of dispersion
- 4. Transaction zone: mean price per point method
- 5. Transaction zone: linear regression method
- 6. Mean price per point method: predicted vs. actual price for comparables
- 7. Linear regression method: predicted vs. actual price for comparables
- 8. Input data
- 9. Computation matrix

<Return> to quit
Enter your choice: 10

Iterations

	GROSS	LOCAT	RATIO	EFFIC	QUALI	S.D.	Mean
Prelim Wts.	20	20	20	20	20	.441591	4.528223
Pass # 1	30	30	10	10	20	5.067353E-02	4.175902
Pass # 2	30	30	10	10	20	5.067353E-02	4.175902

Press any key to continue

EXHIBIT 23 (Continued)

QP

Version 2.1

Program Choices Are:

1. ~~Enter/edit/display/file input data~~
2. Analyze quality point ratings
3. Display output to screen
4. Print output to printer
5. Select options
6. Quit

Enter your choice: ? 5

Special options

Enter your selection:

1. Change search interval

<Return> for no changes
Enter your choice: ? 5

EXHIBIT 24

EXCERPTED FROM APPRAISAL OF INDUSTRIAL SITE

C. Adjustments for Differences to Relate the
Comparables to the Subject Property

To estimate the fair market value of the subject property, based upon the sale prices of the comparables, adjustments are made to account for the differences in the price sensitive attributes of the comparables and the subject property. The comparable properties and the subject property are scored according to the scale detailed in Exhibit 9.

The subject site, which contains 2.5 acres, receives a score of 3 because it is an average sized lot. Since it does not command a more highly visible corner location, a score of 1 is given.

Linkages are extremely sensitive to price. Sites located in major retail areas command higher prices than do warehouses and light manufacturing sites. No retail uses are in sight of the subject so a score of 1 is given. International Lane, a traffic collector, feeds into Packers Avenue, a major arterial, so the subject receives a score of 3. A bus line on Packers Avenue is within two to three blocks of the subject to yield a score of 3. Electricity, telephone, and natural gas lines are available in the general area, but there are no curbs, gutters,

EXHIBIT 24 (Continued)

EXHIBIT 9 (Continued)

SCALE FOR SCORING COMPARABLE SALES
BASED UPON PRICE SENSITIVE ATTRIBUTES

PHYSICAL ATTRIBUTES = 35%

Size 20%	5 = Less than 1 acre 3 = 1 to 4 acres 1 = Greater than 4 acres
Corner Location 15%	5 = Yes 3 = Next to corner on a major road 1 = No

LINKAGES = 50%

Proximity to Major Retail Area 20%	5 = Near a shopping center 3 = Near strip retail area 1 = No retail uses in sight
Access to Major Highways 15%	5 = On a major boulevard or highway 3 = On a traffic collector 1 = On a side street
Availability of Madison Metro 5%	5 = On a bus line 3 = Within 2-3 blocks of bus line 1 = None
Availability of Utilities 10%	5 = Water, sewer, gas, curb, and gutter 3 = Water, sewer, gas 1 = None

EXHIBIT 24(Continued)

EXHIBIT 9 (Continued)

DYNAMIC ATTRIBUTES = 15%

Positive Public Recognition of Street/Location 5%	5 = High visibility or recognition of location 3 = Average 1 = Relatively unknown
--	--

Perceived Adverse Influences 5%	5 = None 3 = Noise/Odor/Visual Problems 1 = Physically threatening
---------------------------------------	--

Immediate View from Property Frontage 5%	5 = Well-landscaped office, shops, and residential 3 = Office/warehouses well-screened and partially landscaped 1 = Assortment of office/warehouse uses with inadequate screening and/or poorly maintained or vacant
---	---

or sidewalks. A score of 3 is given the subject for the availability of utilities.

Dynamic attributes, (the public's perceptions of the property's attributes) contribute to value. Since International Lane is a well-known location with positive public recognition, the subject is given a score of 5. Since the noise from planes landing and taking off could be disruptive, the subject receives a 3. The view from the subject is marred by old barracks converted to offices and warehouse buildings that would no longer meet the more stringent architectural controls now in existence in Truax Air Park West, so the subject receives a score of 1.

Each comparable is scored in a similar manner; the weighted point score matrix which details the calculation of a total point score for both the comparable and the subject is found in Exhibit 10.

The price per square foot for each comparable is divided by its point score and the results are also found in Exhibit 10.

The mean point score per square foot is applied to the point score of the subject to indicate a central tendency value of \$111,000, or \$1.01 per square foot. These calculations are detailed in Exhibit 11.

The range of estimates yields a high of \$123,500, or \$1.13 per square foot and a low of \$98,000, or \$0.90 per square foot.

EXHIBIT 9 (Continued)

WEIGHTED POINT SCORE MATRIX FOR COMPARABLE SALES
BASED UPON PRICE SENSITIVE ATTRIBUTES

ATTRIBUTE	WEIGHT	#1 1905 ABERG AVENUE	#2 1801 COMMERCIAL AVENUE
<u>Physical Attributes</u>		[1]	
Size of Site	20%	3/ .60	1/ .20
Corner Location	15%	1/ .15	1/ .15
<u>Linkages</u>			
Proximity to Retail	20%	3/ .60	1/ .20
Access to Major Roads	15%	5/ .75	3/ .45
Availability of City Bus	5%	3/ .25	5/ .25
Availability of Utilities	10%	5/ .50	5/ .50
<u>Dynamic Attributes</u>			
Public Recognition	5%	5/ .25	3/ .15
Perceived Adverse Factors	5%	3/ .15	5/ .25
View from Site	<u>5%</u> 100%	<u>1/ .05</u>	<u>1/ .05</u>
TOTAL POINT SCORE		3.30	2.20

Sale Price		\$80,000	\$181,150
Date of Sale		8/82	10/80
Land Area (SF)		53,426 (1.23 A)	175,547 (4.03 A)
Price per Square Foot		\$1.50	\$1.03
Total Point Score		3.30	2.20
Price per SF/Point Score		\$0.45	\$0.47

[1] Explanation of weighted score: point score/score x weight

EXHIBIT 9 (Continued)

ATTRIBUTE	WEIGHT	#3 3520 PACKERS AVENUE	#4 814 ATLAS AVENUE (Backs on to Cottage Grove Rd.)	#5 LOT 1, BLK. 7, MADISON INDUSTRIAL SUB., #1	#6 2447 ADVANCE (a.k.a. 4701 Pflaum Road)	#7 LOT 6, BLK. 3, MADISON INDUSTRIAL SUB., #1
<u>Physical Attributes</u>		[1]				
Size of Site	20%	5/1.00	3/ .60	3/ .60	3/ .60	5/1.00
Corner Location	15%	5/ .75	1/ .15	1/ .15	5/ .75	1/ .15
<u>Linkages</u>						
Proximity to Retail	20%	3/ .60	3/ .60	1/ .20	1/ .20	1/ .20
Access to Major Roads	15%	3/ .45	5/ .75	1/ .15	3/ .45	1/ .15
Availability of City Bus	5%	5/ .25	5/ .25	1/ .05	1/ .05	1/ .05
Availability of Utilities	10%	5/ .50	5/ .50	5/ .50	5/ .50	5/ .50
<u>Dynamic Attributes</u>						
Public Recognition	5%	1/ .05	3/ .15	1/ .05	5/ .25	1/ .05
Perceived Adverse Factors	5%	3/ .15	5/ .25	5/ .25	5/ .25	5/ .25
View from Site	<u>5%</u> 100%	<u>1/ .05</u>	<u>3/ .15</u>	<u>3/ .15</u>	<u>3/ .15</u>	<u>3/ .15</u>
TOTAL POINT SCORE		3.80	3.40	2.10	3.20	2.50
<u>Sale Price</u>		\$30,000	\$125,000	\$70,000	\$60,000	\$20,900
<u>Date of Sale</u>		2/79	6/83	9/82	9/82	9/82
<u>Land Area (SF)</u>		21,747 (0.50)	80,613 (1.85 A)	73,109 (1.68 A)	45,472 (1.04 A)	22,997 (0.53 A)
<u>Price per Square Foot</u>		\$1.55 [2]	\$1.55	\$0.96	\$1.32	\$0.91
<u>Total Point Score</u>		3.80	3.40	2.10	3.20	2.50
<u>Price per SF/Point Score</u>		\$0.41	\$0.46	\$0.46	\$0.41	\$0.36

[1] Explanation of weighted score: point score/score x weight
 [2] This older sale is adjusted upward 12 percent for time. (1.12 x \$1.38 = \$1.55)

EXHIBIT 24(Continued)

EXHIBIT 9 (Continued)

ATTRIBUTE	WEIGHT	#8 LOT 2, BLK. 6. MADISON INDUSTRIAL SUB., #1	#9 4484 ROBERTSON ROAD MADISON IND. SUB., #1	SUBJECT LOT 2, CSM 928
<u>Physical Attributes</u>		[1]		
Size of Site	20%	5/1.00	3/ .60	3/ .60
Corner Location	15%	1/ .15	1/ .15	1/ .15
<u>Linkages</u>				
Proximity to Retail	20%	1/ .20	1/ .20	1/ .20
Access to Major Roads	15%	1/ .15	1/ .15	3/ .45
Availability of City Bus	5%	1/ .05	1/ .05	3/ .15
Availability of Utilities	10%	5/ .50	5/ .50	3/ .30
<u>Dynamic Attributes</u>				
Public Recognition	5%	1/ .05	1/ .05	5/ .25
Perceived Adverse Factors	5%	5/ .25	5/ .25	3/ .15
View from Site	<u>5%</u>	<u>3/ .15</u>	<u>3/ .15</u>	<u>1/ .05</u>
	100%	2.50	2.10	2.30
<hr/>				
Sale Price		\$32,000	\$98,600	N/A
Date of Sale		2/82	1/82	N/A
Land Area (SF)		24,975 (0.57)	98,600 (2.26 A)	109,493 (2.51 A)
Price per Square Foot		\$1.28	\$1.00	N/A
Total Point Score		2.50	2.10	2.30
Price per SF/Point Score		\$0.51	\$0.48	N/A

[1] Explanation of weighted score: point score/score x weight

EXHIBIT 24 (Continued)

EXHIBIT 24 (Continued)

EXHIBIT 9 (Continued)

CALCULATION OF MOST PROBABLE PRICE USING
MEAN PRICE PER POINT EQUATION METHOD

Comparable Property	Adjusted Selling Price per SF	Weighted Point Score	<u>Price per SF</u> Weighted Point Score
1	\$1.50	3.30	\$0.45
2	1.03	2.20	0.47
3	1.55	3.80	0.41
4	1.55	3.40	0.46
5	0.96	2.10	0.46
6	1.32	3.20	0.41
7	0.91	2.50	0.36
8	1.28	2.50	0.51
9	1.00	2.10	<u>0.48</u>
		TOTAL	\$4.01

$$\text{Central Tendency [1]} = \frac{\sum x}{n} = \frac{4.01}{9} = .44$$

$$\text{Dispersion} = \sqrt{\frac{\sum (x-x)^2}{(n-1)}} = \sqrt{\frac{.0168}{8}} = .05$$

$$[1] \quad x = \text{Sum of } \frac{\text{Price per SF}}{\text{Weighted Point Score}}$$

n = Number of Observations

$$\bar{x} = \text{Average } \frac{\text{Price per SF}}{\text{Weighted Point Score}}$$

EXHIBIT 9 (Continued)

where:

\bar{x}	$\bar{\bar{x}}$	$\frac{((x-\bar{x}))}{n}$	$(x-\bar{x})^2$	\bar{n}	$n-1$
.42	.44	.02	.0004	9	8
.47	.44	.03	.0009		
.41	.44	.03	.0009		
.46	.44	.02	.0004		
.46	.44	.02	.0004		
.41	.44	.03	.0009		
.36	.44	.08	.0064		
.51	.44	.07	.0049		
.48	.44	.04	.0016		

$$\sum(x - \bar{x})^2 = .0168$$

Value range for subject property:

$$\bar{x} \pm \text{dispersion} = \$0.44 \pm .05$$

Square Footage of Subject x Weighted Point Score x (Central Tendency \pm Dispersion) =

$$109,493 \times 2.30 \times (\$0.44 \pm .05) =$$

High Estimate of \$123,500 or \$1.13 per square foot

Central Tendency of \$111,000 or \$1.01 per square foot

Low Estimate of \$98,000 or \$0.90 per square foot

As a check on the appropriateness of the appraiser's selection and weighting of price sensitive factors, the point scores calculated for each comparable is multiplied by the mean price per square foot per point score to predict or estimate the actual selling price of each comparable. The results are as follows:

<u>COMPARABLE NUMBER</u>	<u>WEIGHTED POINT SCORE</u>	<u>ESTIMATED PRICE/SF</u>	<u>ACTUAL PRICE/SF</u>	<u>RESIDUAL ERROR</u>
1	3.30	1.45	1.50	-.05
2	2.20	0.96	1.03	-.07
3	3.80	1.67	1.55 (adj.)	+.12
4	3.40	1.50	1.55	-.05
5	2.10	0.92	0.96	-.04
6	3.20	1.41	1.32	+.09
7	2.50	1.10	0.91	+.19
8	2.50	1.10	1.28	-.18
9	2.10	0.92	1.00	<u>+.08</u>
NET RESIDUAL ERRORS				+.09

There appears to be a tight fit between the estimated and the actual price; so it can be concluded that the selection and weighing of the price sensitive factors successfully reflected buyer behavior.

EXHIBIT 24 (Continued)

The market comparable approach is sensitive to the appraiser's ability to predict buyer perceptions in a changing market. The weighted point scores are an attempt to capture these perceptions. Consequently, this calculated value is only the initial step in determining the final price estimate. This initial transaction zone must be adjusted in light of certain external factors such as the buyer's alternative option to lease surrounding land from Dane County instead of buying in fee which, in turn, will be affected by the current cost of financing land purchases, the income tax consequences of buy versus lease decision, and the effect of the Consumer Price Index (CPI) escalator upon rental rates for leased land. Other external factors include the effect of the Truax Air Park covenants upon the quality of future development in the area, and the future expansion of the Dane County Regional Airport.

CONTEMPORARY ISSUES AND METHODS FOR
APPRAISING COMMERCIAL PROPERTIES
(Continued)

III. THE INCOME APPROACH OR INVESTMENT SIMULATION APPROACH
APPLIED TO LARGE INCOME PROPERTY

The basic concept of the income approach is that the property value is the present value of an income stream to the investor plus the present value of the reversion to the investor. That simple truism requires very disciplined, systematic, but internally consistent logic to carry off.

- A. First there is the problem of defining the perspective of the buyer or buyer presumed by the issue for which the appraisal is required as a benchmark. This perspective will determine what revenues and expenses must be considered.
- B. There is the problem of defining the source, amount, and timing of receipt in terms of accounting theory (cash or accrual) and in terms of business practice (receivables versus collections).
- C. There is the problem of defining expenses attributable to the real estate as opposed to the occupancy as perceived by the most probable buyer.
- D. Selection of a forecast period also determines necessary charges to operations for tenant improvement, leasing commissions, reserve for replacement and refurbishment, and other soft capital items to be amortized over nominal periods of time.
- E. Then there is the problem of defining the most probable capital structure for buyer financing of the property assuming cash to the seller and/or assuming some seller financing.
- F. There is the problem of selecting a conversion process with which to define a net reversion assumed for some future point in time in an uncertain future.

- G. There is the problem of recognizing entitlements or submerged profit centers which can be controlled through purchase of real estate because real estate traditionally does not carefully delineate net income from real estate, personalty, intangible assets, captive consumers, or managment.
- H. Given the complexities of the above, how do buyers convert cash flows, reversions, peripheral profit centers, and portfolio effects to a purchase price.

CONTEMPORARY ISSUES AND METHODS FOR
APPRAISING COMMERCIAL PROPERTIES
(Continued)

IV. CONTEMPORARY APPRAISAL AND
ACCOUNTING THEORY

Fundamental issues which will lead to standardization of perspective by the FASB, the American Appraisal organizations, and the European Common Market in which RICS played a major role.

- A. Unwitting deviation from derivation of the income approach which:
1. Originally intended to measure economic surplus of an asset in terms of normalized net income projected over a mathematical line for the life of an asset;
 2. Investment band theory shifted value to the sum of present value claims on the income, specifically liability valuation.
 3. Equity valuation in the securities markets recognize claims from income were prioritized by risk and critical path of service provided. Earnings were irregular, related to investor tax status, and manipulated by marketing monopoly or operating control.
- B. This evolution from economic surplus to claims on liabilities to going concern values has produced incredible confusion and opportunity for valuation disinformation because appraisers don't know any accounting.
1. Economic productivity requires accrual accounting
 2. Financial productivity requires cash accounting
 3. Going concern valuation requires profit center segregation and venture capital discounting based on source and application

CONTEMPORARY ISSUES AND METHODS FOR
APPRAISING COMMERCIAL PROPERTIES
(Continued)

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- B. This evolution from economic surplus to claims on liabilities to going concern values has produced incredible confusion and opportunity for valuation disinformation because appraisers don't know any accounting.
1. Economic productivity requires accrual accounting
 2. Financial productivity requires cash accounting
 3. Going concern valuation requires profit center segregation and venture capital discounting based on source and application

- C. Some computer systems for property management already have the feature of converting from accrual to cash accounting and several studies are underway to define accounting conventions for appraisers.
1. Exhibit 25 contains generalized theory for converting accrual accounting to cash accounting
 2. Exhibit 26 contains an analysis of the feasibility of a small city office rehab project
 3. Exhibit 27 contains the format for an income property pro forma on a cash accounting basis
 4. Exhibit 28 contains an example of discounted cash flow without a computer
- D. Accounting theory also distinguishes value by a variety of perspectives in order to fit the function of the accounting task to measure the appropriate economic aspect:
1. Exit value assuming completion of normal business cycle in an orderly fashion (benchmarking).
 2. Exit value assuming abrupt liquidation (construction loan validation).
 3. Replacement value with asset of current technology.
 4. Reproduction value of asset at original state of technology.
 5. Market value in an organized market for tangible goods.
 6. Current value in an organized market for tangible goods.
 7. Discounted value of future receipts at interest factor.
 8. Value of asset not yet charged to consumption or production.

- E. Discounted cash flow must also anticipate that the collectibility of CPI adjustments and pass-throughs as well as deferred rent concessions must be examined. The shorter the lease term and the lower the tenant investment in improvements, the less probability there is of collection.
1. The appraiser must not only read the leases, but determine the degree to which management has collected future adjustments as a measure of effective rents rather than contract rents.
 2. However, the appraiser is not expected to be an auditor and his statement of limiting conditions should contain a clause indicating the presumption of the appraisal, i.e., that payments due the landlord have in fact been collected, does not represent a conclusion based on an audit of past operations.
 3. Tenant improvements which will benefit the property after the lease has expired or greatly in excess of allowances in the original contract represent a form of rent guaranty which might be identified by the appraiser when making an assumption about the collectibility of all forms of reimbursements.
 4. The appraiser should also note if property management is releasing under terms which convert old escalators to monthly reimburseables or CAM items which are collectible monthly on an anticipated average basis to be adjusted at the end of each fiscal year, significantly altering cash flows and the certainty of collection in the future.

- F. The increasing use of CAM payments and the broadening scope of costs included introduce another problem in analyzing real estate receipts. Property managers generally include a 10 to 15 percent surcharge on actual outlays for the work of collecting and accounting for CAM; CAM contains a profit center for management. The appraiser must determine if that profit center belongs to the building owner to offset the general management fee or has been considered as part of the compensation formula to the management function. In the latter case, it is clearly not real estate revenue to be capitalized into the value of the property.
1. Management compensation formulas have become more complex so that simple appraisal accounting for a percentage of effective gross plus a leasing commission can be very misleading.
 2. Formulas generally involve different leasing commissions for renewals versus replacement of tenants, construction supervision fees for renovations, tenant improvements, etc., as well as reimbursement for advertising, after-hours servicing, or negotiation of casualty losses.
 3. Construction supervision, tenant relations, as well as actual refurbishment expenses suggest how much is being invested in the future of the building, like R & D in a manufacturing corporation.
- G. Fair market value presumes definition of economic rent attributable to the real estate as opposed to intangible assets or personal property.
1. Is income attributable to entitlements that go with fee simple title to the land and are point specific or to transportable permits?
 - a. For example--does liquor license go with the building? Is permit to build or maintain a dam assignable? Does right to management fee and brokerage fee go with general partnership or property?
 2. Is the real estate income from retailing of space or from wholesaling of space?

- a. Parking ramp lease versus parking space by the hour, observation deck versus ticket, condominium conversion fee versus apartment project investment.
 3. Is the income for extraordinary services or intangible assets rather than customary?
 - a. Maid service versus janitorial, shopping center premium for proximity or for joint merchandising and risk management.
 4. Ancillary to, rather than integral with the project.
 - a. Can services be acquired off premises such as janitorial or utilities?
 5. IRS classification as 1250 property (real) or 1231 property (personalty) and Section 453, 453A and B, or Section 38 (tangible) or Section 45 (intangible).
 6. Is income attributable to governmental agencies in exchange for contractual entitlements of control or use to the public interest for the term of the contract?
- H. Defining expenses attributable to the real estate is particularly difficult where you have a current occupancy/owner, such as a home office for a bank or insurance company. There are many distortions in the general ledger due to:
1. Superadequacy of maintenance.
 2. Corporate accounting to shift or conceal division profits
 3. Confusion of busines security with building operations
 4. Deliberate concealment of corporate pet projects as building expense
 5. Artificial corporate accounting charges for space or corporate services

- I. Careful accounting distinctions are the critical differences in valuing property for real estate taxes, or liquidating value for a lender, or going concern value for a limited partnership or unit value of a comingled fund.
 - 1. Choice of the accounting format is also related to selection of the number of periods on a forecast. The assessor can accept short-term forecasts since there is opportunity for periodic review; the mortgage lender needs a longer term forecast to anticipate cyclical contractions of cash flow threatening the mortgage payment.
 - 2. However, what time frame is appropriate for valuing assets in a comingled fund? Large, unrecognized assets and negative cash flows have their payoff over the average lease term or longer; how should the valuation formula recognize these intangible assets?
- J. Selection of a forecast period as five or ten years or more reflects purpose and sensitivity to value to long term assumptions and the curve of compound interest. Ten-year convention seems to be growing although a single lease rollover period is sufficient to strain the forecasting talents of most appraisers.
- K. The decision by the Institute to require definition of fair market value with all cash to the seller before reporting a value attached to special financing provided by the seller is critical in providing the hope of its standard against which all manner of structuring can be related.
 - 1. Financing is not the only entitlement which enhances value beyond fair market value. There may be favorable leases, tax abatements, monopolies, and all manner of regulatory entitlements which are not included in fee simple title, but travel with the real estate. The increment attributable to these should generally be flagged as well.

2. Fee simple encumbered by leases is generally identified, but what about fee simple encumbered by special district rules, title flaws, or regulatory controls like those of the FERC?
- L. Submerged profit centers are becoming much more significant due to management loads on CAM, back-end loads on finite financing agreements, and penalties for prepaid financing, cancelled contracts, windfall real estate tax returns, or sale of services and equipment leasing to the tenants. As control of property shifts to asset managers, so does control of the captive consumers within the building and the customer lists of potential tenant relocation in the future go to the benefit of the asset manager at the expense of the building owner.
- M. Problem of defining or forecasting a reversion:
1. Pricing real estate for utilitarian purpose, to buy access to service sales, or speculate in long term demand/supply commodity relationships or long term commodity/money ratios.
 2. Can the appraiser prove presence of necessary conditions for appreciation and amount of depreciation?
 - a. Rising net income
 - b. Falling interest rates
 - c. Falling investor expectations
 3. When is appreciation speculative, non-vested, and excluded from fair market value?
- N. The most common reversion process is to estimate net income for the year after the year of sale--year six in a five-year forecast, or year eleven in a ten-year forecast.
1. This income is then capitalized at some rate, either a market rate at the time of the forecast or a more conservative rate to reflect aging of the property and the anticipation that it would be sold when the possibility of further increases in net income had declined significantly.

2. The critical question is how dependent is value on the change in retail price? Dilmore indicates there are seven sources of cash return which might each be discounted separately to represent the risk inherent in realizing the expected flow. These elements are:
 - a. Return of original equity investment
 - b. Value of cash flows at first year level
 - c. Growth (decline) of cash flow stream
 - d. Tax shelter of subject's cash flow
 - e. Tax shelter of external income
 - f. Growth of equity from amortization
 - g. Growth of equity from value appreciation
3. See "Component Capitalization" by Gene Dilmore in Real Estate Issues, Spring-Summer 1985.
4. Perhaps the most important paragraph at the end of the Dilmore article, with reference to a simple future price or Monte Carlo resale price estimate is:

"Whether the appraiser considers this as an independent value indication from the income approach, or as a testing of the probable price indicated by analysis of the market data, is a matter of individual choice. In either case, a report section on externalities should follow these calculations giving consideration to the external factors (money markets, investor moods, political contingencies, local phenomena altering market expectations, etc.) which can push the indicated price in either direction."

5. Probability models are not likely to be accepted soon for three practical limitations--appraisers have limited knowledge of statistics, decision-makers prefer their subjective intuitions, and thoroughness may not be cost effective in terms of decisions to buy, sell, or lend.
6. There is a sensitivity algorithm called the Cady-Westby model which can directly compute changes in net present value or IRR or the break-even ratio which can occur for each one percent variance in key variables. It works quickly on a PC; it is based on response theory, but the algorithm represents high security information for nuclear power plant management. It will allow appraisers to avoid probability modeling just a set theory by-passes the problems with degrees of freedom in a limited data base.

EXHIBIT 27

PRO FORMA INCOME PROPERTY FORMAT

(Cash Accounting Basis)

- I. Expected Receipt
 - Base rent (Monthly)
 - Index to base rent (Annual adjustment to monthly base)
 - Percentage rent (Quarterly estimate with fifth quarter adjustment)
 - Amortized tenant improvements (Monthly, fixed)
 - CAM (Monthly average with 14th month adjustment)
 - Reimburseables (Annual pass through)
 - Escalators with stop (Annual review)
 - Interest on reserves (Quarterly sweep)
 - Government transfer payments (Negotiated and deferred)
 - Total receipts
- II. Loss of Potential Receipts
 - Vacancy losses
 - Rent collection losses
 - Reimbursement collection losses
 - Receivables
 - Concessions
 - Total reduction in expected receipts
- III. Actual Revenues for Operations
- IV. Gross Outlays for Operations
 - CAM items
 - Reimburseables
 - Escalator items
 - Owner costs
 - Refurbishment
 - Renewal tenant improvements
 - Renewal lease commissions
 - Total operating outlays
- V. Total Cash from Operations
- VI. Capital Charges
 - Interest payments
 - Principal payments
 - Capital improvements
- VII. Net Cash from Operations before Taxes
 - + Transfers from cash reserves from previous period
 - + Net increases in loan balances outstanding
- VIII. Cash Available for Distribution and/or Taxes
 - Less distribution and taxes
 - = Net addition to cash reserves in following period

EXAMPLE OF DISCOUNTED CASH FLOW
WITH 100% EQUITY FINANCING

YEAR	ANNUAL NET OPERATING INCOME (NOI)	DISCOUNT FACTOR AT 17%	PRESENT VALUE OF EQUITY
Last 6 Months of 1982	\$189,758	0.924500	\$175,431
1983	364,022	0.790171	287,640
1984	410,013	0.675360	276,906
1985	457,118	0.577230	263,862
1986	454,429	0.493359	224,197
1987	579,334	0.421674	244,290
1988	574,943	0.360405	207,212
1989	591,365	0.308039	182,163
1990	624,054	0.263281	164,302
1991	659,043	0.225026	148,302
First 6 Months of 1992	323,726	0.208037	67,347
	RESALE PRICE		
1992	4,839,000	0.208037	1,007,000
	PRESENT VALUE OF EQUITY		\$3,248,652
	TOTAL VALUE WITH 100% EQUITY		\$3,248,652
		ROUNDED	\$3,200,000

EXAMPLE OF DISCOUNTED CASH FLOW
WITH 100% EQUITY FINANCING

YEAR	ANNUAL NET OPERATING INCOME (NOI)	DISCOUNT FACTOR AT 17%	PRESENT VALUE OF EQUITY
Last 6 Months of 1982	\$189,758	0.924500	\$175,431
1983	364,022	0.790171	287,640
1984	410,013	0.675360	276,906
1985	457,118	0.577230	263,862
1986	454,429	0.493359	224,197
1987	579,334	0.421674	244,290
1988	574,943	0.360405	207,212
1989	591,365	0.308039	182,163
1990	624,054	0.263281	164,302
1991	659,043	0.225026	148,302
First 6 Months of 1992	323,726	0.208037	67,347
	RESALE PRICE		
1992	4,839,000	0.208037	1,007,000
	PRESENT VALUE OF EQUITY		\$3,248,652
	TOTAL VALUE WITH 100% EQUITY		\$3,248,652
		ROUNDED	\$3,200,000

EXHIBIT 28 (Continued)

EXAMPLE OF DISCOUNTED CASH
FLOW WITH CONVENTIONAL FINANCING

YEAR	ANNUAL NET OPERATING INCOME (NOI)	ANNUAL DEBT SERVICE BASED ON DEBT COVER RATIO (DCR) OF 1.3 [1]	NOI LESS DEBT SERVICE EQUALS CASH THROW-OFF (CTO)	DISCOUNT FACTOR AT 17%	PRESENT VALUE OF EQUITY
Last 6 Months of 1982	\$189,758	140,000	\$49,750	0.924500	\$46,000
1983	364,022	280,000	84,000	0.790171	66,400
1984	410,013	280,000	130,000	0.675360	87,800
1985	457,118	280,000	177,100	0.577230	102,200
1986	454,429	280,000	174,400	0.493359	86,000
1987	579,334	280,000	299,300	0.421674	126,200
1988	574,943	280,000	295,000	0.360405	106,300
1989	591,365	280,000	311,400	0.308039	96,000
1990	624,054	280,000	344,100	0.263281	90,600
1991	659,043	280,000	379,000	0.225026	85,300
First 6 Months of 1992	323,726	140,000	183,700	0.208037	38,200
1992	RESALE PRICE 4,839,000	RESALE PRICE LESS MORTGAGE BALANCE [2] 3,042,000		0.208037	632,800
	PRESENT VALUE OF EQUITY				\$1,563,800
	ORIGINAL MORTGAGE BALANCE				2,001,753
	TOTAL VALUE WITH CONVENTIONAL FINANCING				\$3,565,553
				ROUNDED	\$3,600,000

[1] Based on first full year NOI

[2] Maximum mortgage which NOI can carry, assuming a DCR of 1.3, interest at 13.5 percent for a 25 year term with monthly payments, is \$2,001,753. At the end of a ten year holding period the balance due is \$1,797,196 or rounded \$1,797,000.

EXHIBIT 28 (Continued)

EXAMPLE OF DISCOUNTED CASH
FLOW WITH SELLER FINANCING

YEAR	ANNUAL NET OPERATING INCOME (NOI)	ANNUAL DEBT SERVICE BASED ON DEBT COVER RATIO (DCR) OF 1.1 [1]	NOI LESS DEBT SERVICE EQUALS CASH THROW-OFF (CTO)	DISCOUNT FACTOR AT 17%	PRESENT VALUE OF EQUITY
Last 6 Months of 1982	\$189,758	\$165,450	\$24,300	0.924500	\$22,500
1983	364,022	330,900	33,100	0.790171	26,200
1984	410,013	330,900	79,100	0.675360	53,400
1985	457,118	330,900	126,200	0.577230	72,900
1986	454,429	330,900	123,500	0.493359	60,900
1987	579,334	330,900	248,400	0.421674	104,800
1988	574,943	330,900	244,000	0.360405	88,000
1989	591,365	330,900	260,500	0.308039	80,200
1990	624,054	330,900	293,100	0.263281	77,200
1991	659,043	330,900	328,100	0.225026	73,800
First 6 Months of 1992	323,726	165,450	158,300	0.208037	33,000
	RESALE PRICE	RESALE PRICE LESS MORTGAGE BALANCE [2]			
1992	4,839,000	2,602,000		0.208037	541,300
					1,234,200
					2,528,995
					\$3,763,195
					=====
				ROUNDED	\$3,800,000
					=====

[1] Based on first full year NOI

[2] Maximum mortgage which NOI can carry, assuming a DCR of 1.1, interest at 12.5 percent amortized over 25 years with monthly payments, is \$2,528,995. At the end of a ten year holding period the balance due is \$2,237,023 or \$2,237,000, rounded.

EXHIBIT 28 (Continued)

EXAMPLE OF DISCOUNTED CASH
FLOW WITH SELLER FINANCING

YEAR	ANNUAL NET OPERATING INCOME (NOI)	ANNUAL DEBT SERVICE BASED ON DEBT COVER RATIO (DCR) OF 1.1 [1]	NOI LESS DEBT SERVICE EQUALS CASH THROW-OFF (CTO)	DISCOUNT FACTOR AT 17%	PRESENT VALUE OF EQUITY
Last 6 Months of 1982	\$189,758	\$165,450	\$24,300	0.924500	\$22,500
1983	364,022	330,900	33,100	0.790171	26,200
1984	410,013	330,900	79,100	0.675360	53,400
1985	457,118	330,900	126,200	0.577230	72,900
1986	454,429	330,900	123,500	0.493359	60,900
1987	579,334	330,900	248,400	0.421674	104,800
1988	574,943	330,900	244,000	0.360405	88,000
1989	591,365	330,900	260,500	0.308039	80,200
1990	624,054	330,900	293,100	0.263281	77,200
1991	659,043	330,900	328,100	0.225026	73,800
First 6 Months of 1992	323,726	165,450	158,300	0.208037	33,000
	RESALE PRICE	RESALE PRICE LESS MORTGAGE BALANCE [2]			
1992	4,839,000	2,602,000		0.208037	541,300
					1,234,200
					2,528,995
					<u>\$3,763,195</u>
					=====
				ROUNDED	<u>\$3,800,000</u>
					=====

[1] Based on first full year NOI

[2] Maximum mortgage which NOI can carry, assuming a DCR of 1.1, interest at 12.5 percent amortized over 25 years with monthly payments, is \$2,528,995. At the end of a ten year holding period the balance due is \$2,237,023 or \$2,237,000, rounded.

CONTEMPORARY ISSUES AND METHODS FOR
APPRAISING COMMERCIAL PROPERTIES
(Continued)

VIII. CONTEMPORARY MODELS FOR CONVERSION OF
CASH FLOWS TO VALUE ESTIMATES

The new income approach for large income properties has become a hybrid of a CPA format and appraisal models for converting cash flows to value estimates.

- A. Several computer software packages make it possible to detail and project large numbers of leases so that total project revenue is supported by a series of schedules as indicated by Exhibit 29. When using a discounted cash flow model, it is imperative to stay as close to cash accounting as possible.
- B. All forms of reimbursement must reflect time lags, and collection losses and renewals should be charged for concessions on past due proposals. Appraisers would be well advised to introduce a limiting condition to the effect that:

"Pro forma budgets and assumptions about actual collection of reimbursable expenses and supplemental rent are not based upon an actual audit of property operations and reflect only a business plan which could be accomplished through effective management."
- C. Operating expenses for appraisers were traditionally divided between fixed variable and reserve for replacement. Today operating expenses should be organized by groups which reflect method of, or degree of, reimbursement by tenants.
 1. Revenue projections can be prepared by a CPA or a property management firm with the computer systems to handle complex allocations, timing, and changeovers in leasing format. The appraiser explicitly recognized source and can allocate liability for same to the CPA or CPM who prepared the estimate.

2. Building owners or investment bankers may provide the computerized lease data base for the appraiser as a point of departure.
 3. The critical functions of the appraiser will be to estimate:
 - a. Rate of increase or decrease in operating expenses during the forecast period;
 - b. Estimate the tenant turnover and resulting loss of income from vacancy, concession, and relocation costs;
 - c. Estimate the rate and degree of application and collection of rental increases; and
 - d. Estimate concessions required to keep existing tenants, including special tenant improvements and refurbishing.
 4. Some clients are beginning to prescribe the specific assumptions for indexing rents and the ratio of tenant turnover and tenant renewal; again, these assumptions become significant limiting conditions on the appraisal report or the subject for extensive footnote discussion.
 5. CAM expenses are prorated on space occupied rather than usable area, so be careful where you apply flat vacancy allowances. Parking may be fully leased even if the building has substantial vacancies; at the same time, hotel room rates and office rents may conceal parking charges which are reallocated to the parking concession, so that the appraiser may unwittingly double-count.
- D. Many projects today are the beneficiaries of income generating reserves required of revenue bond issues, HODAG and UDAG grants, or municipal subsidy arrangements such as tax incremental financing. This income is part of the property value for mortgage loan purposes, but must be excluded for real estate tax purposes. The income from these reserves is generally available on a quarterly basis and the amount depends upon the reinvestment rate and allowable arbitrage at the times these reserves were created.

1. Reserves tied to the finances must be deducted from sales price on FNA or IRB financed deals, solely subject to the mortgage, or prices can be seriously overstated.
 2. R-41b specifically permits recognition of supplementary income from services regularly offered to tenants, such as the elderly.
 3. See Exhibits 31 and 32.
 4. Elderly housing pro forma.
- E. It is not necessary today to always use a mortgage equity approach. The conversion of net cash to present values may take several basic patterns.
1. Simple discounting of annual net cash by a project discount rate assuming no financing and reasonably stable re-sale price as shown in Exhibit 30 done for a pension fund.
 2. A simple mortgage equity approach using a five-year forecast and a debt cover ratio and other loan parameters based on natural averages of the American Council of Life Underwriters, Schedule M (see Exhibit 33).
 3. A basic mortgage package presuming responsible underwriting plus the sale value of appreciable base and tax credits to a professional buyer for syndication. For example: syndicators might pay 35 percent of depreciable base plus 80 percent of first-year tax investment credit; more conservative syndicators might pay exactly one-half of the tax value of equity.
 4. Custom crafted finance packages with variable rates, credit enhancements, interest rate caps, and participations become investment value situations which must be compared to fair market value so that the increment to value through the modification of the financial stand is revealed.

- F. As a result of all of the above, the appraisal process is subdivided into those firms which knowingly or unwittingly exploit the lack of accounting precedent to generate high values in the fine art of commercial disinformation. On the other hand, a fully-professional firm will integrate professional specialties into a clinic shop which contains a CPA, a mechanical engineer, a physical planner, an information processor, and an appraiser. The fastest growing segment of appraisal is the business consulting firm opening an appraisal subsidiary. Arthur Andersen went from almost "0" to \$16,000,000 last year, probably in third place behind the old-style firms of American Appraisal at \$66,000,000 and Marshall and Stevens at \$26,000,000. It is estimated that 20 percent of their volume is spent in marketing.

PAGES 121 TO 150 ARE MISSING

SEE:

JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS
V. INDUSTRY SEMINARS AND SPEECHES - SHORT TERM

- A. Appraisal Organizations
 - d. "Contemporary Issues and Methods for Appraising Commercial Properties", sponsored by AIREA Arizona Chapter 41, October 9, 1985.

**A RETIREMENT LIVING CENTER
 SCHEDULE OF PROJECTED REVENUES FROM
 JANUARY 1, 1985, THROUGH DECEMBER 31, 1994 (1)**

		ESTIMATED GROWTH RATES FROM 1987-1994 (2)									
		1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
EFFECTIVE GROSS APARTMENT/SERVICE REVENUE (3)											
81 - 1 BR Apartment Units	5%	0	239501	221640	337092	353947	371644	390226	409737	430224	451735
60 - 2 BR Apartment Units	6%	0	266976	309093	327639	347297	368135	390223	413636	438454	464762
8 - 2 BR Deluxe Apartment Units	7%	0	47680	50719	54270	58069	62133	66483	71136	76116	81444
Service/Amenity Package - 149 Residents (3) (1st Occupant)	6%	0	435204	543639	576253	610828	647477	686326	727506	771156	817425
Service/Amenity Package - 37 Residents (2nd Occupant)	6%	0	68772	85907	91661	96525	102318	108455	114963	121861	129172
SUBTOTAL: EFFECTIVE GROSS APARTMENT/ SERVICE REVENUE		0	1058333	1310394	1386314	1466689	1551706	1641713	1736978	1837811	1944539
EFFECTIVE GROSS PARKING REVENUE (4)											
48 Attached Garages	5%	0	19114	21480	22954	23682	24666	25109	27415	28786	30225
60 Ancillary Attached Garages	5%	0	9360	14364	15082	15836	16628	17460	18333	19249	20212
SUBTOTAL: EFFECTIVE GROSS PARKING REVENUE		0	28474	35844	37636	39518	41494	43569	45747	48035	50438
LAUNDRY - EFFECTIVE GROSS REVENUE (5)											
LAUNDRY - EFFECTIVE GROSS REVENUE (5)	5%	0	1712	2118	2224	2335	2452	2575	2703	2838	2980
OTHER - EFFECTIVE GROSS REVENUE (6)											
OTHER - EFFECTIVE GROSS REVENUE (6)	7%	0	16892	21300	22791	24306	26093	27929	29874	31965	34203
SUBTOTAL: EFFECTIVE GROSS REVENUE-RENT/ PARKING, LAUNDRY & OTHER SOURCES		0	1105411	1369656	1448965	1532904	1621745	1715776	1815303	1920649	2032158
INTEREST INCOME (6)											
Security Deposit @ 9%	0%	0	7599	8954	8954	8954	8954	8954	8954	8954	8954
Debt Service Reserve Fund @ 11.5%	0%	64400	64400	64400	64400	64400	64400	64400	64400	64400	64400
SUBTOTAL: INTEREST INCOME		64400	71999	73354	73354	73354	73354	73354	73354	73354	73354
TOTAL EFFECTIVE GROSS REVENUE (7)		64400	1177409	1443010	1522320	1606259	1695099	1789130	1888657	1994004	2105512

EXHIBIT 31

FOOTNOTES TO EXHIBIT 31 (Continued)

A RETIREMENT LIVING CENTER
 SCHEDULE OF PROJECTED REVENUES FROM JANUARY 1, 1985,
 THROUGH DECEMBER 31, 1994

[1] Detailed calculations of projected potential and effective gross revenue are found in Appendix C. The potential gross revenue and vacancy loss from each revenue source for each year are shown.

[2] Vacancy Loss: Although completion of ~~the project~~ is targeted for the late fall of 1985, for purposes of this appraisal it is assumed that operations begin on January 1, 1986, and all pre-leased units are occupied at that time. Based upon occupancy/vacancy projections detailed in Exhibit III-6 the 81 one-bedroom units will have an average vacancy loss of 23 percent in 1986 and apartment rents will remain at the same level as in 1984-85. The average vacancy thereafter will be stable at 1.7 percent per year for tenant turnover.

The 60 two-bedroom units will have an average vacancy loss of 10 percent in 1986 and will then be stabilized at 1.7 annually for tenant turnover.

The eight deluxe two-bedroom units have a waiting list 1-1/4 years before the project is scheduled to open. Vacancy will be 0 percent in 1986 and will average 1 percent thereafter to account for the time needed to redecorate as tenancy changes.

Inflation Rate: Landmark Research, Inc.'s 1984 apartment rental survey in ~~Seattle~~ and in ~~Seattle~~ indicates a varying pattern of rental increases from February 1984 to November 1984. The City of ~~Seattle~~ Department of Planning and Development previously referenced study also indicates a steady increase in rents for one- and two-bedroom units. The data given for efficiencies and three-bedroom units were discovered to contain some distortions, but the one- and two-bedroom information appears to be consistent with the 1982 data and Landmark's information. Landmark's rental study and the City of ~~Seattle~~ comparative rent data for 1982 and 1984 are found in Appendix B of this appraisal.

FOOTNOTES TO EXHIBIT 31 (Continued)

Based upon historic market rent increases in _____ and _____, comparative rents of other retirement centers in _____ and _____ on file in Landmark's office, changes in the consumer price index, and demand factors for unit types, the following inflation factors are projected for _____ :

For one-bedroom units, the rental revenue is expected to increase annually from 1987 at 5 percent after the initial rent-up period.

The two-bedroom units will have a greater demand in the early years of the project; the market survey results and the pre-leasing unit mix confirm this consumer preference. The appraiser estimates that the two-bedroom monthly service charge at \$675 per month was initially understated when compared with other _____ and _____ retirement center fees; because of the strong demand for two-bedroom units and the initial understatement of the total monthly service charge, the rent portion is expected to increase 3 percent in 1986 and is projected to increase at 6 percent annually thereafter.

The demand is high for the larger two-bedroom, 1.75 bath unit and therefore the rent is expected to increase 5 percent in 1986 and 7 percent per year thereafter, a rate which includes both a high demand and an inflationary factor.

- [3] The monthly service package, as detailed in Exhibit III-8, is projected to increase at 6 percent per year. As residents learn to live in and fully utilize the varied spaces and services available in a well-managed retirement living center, the value of this package will increase in intrinsic value to each resident. The revenue from the service package varies with occupancy; in 1986 occupancy is estimated to be 83.5 percent and in 1987 and thereafter, occupancy is expected to average 98.4 percent overall.
- [4] In 1986 the 48 attached garage stalls located on the south end of wings A and B are projected to experience a vacancy loss of 7.5 percent and an average of 1 percent thereafter. The rent is expected to increase by 2-1/2 percent in 1986 and at 5 percent thereafter.

FOOTNOTES TO EXHIBIT 31 (Continued)

The 60 ancillary enclosed garage stalls, expected to have a longer rent-up period, are projected to have a vacancy loss of 35 percent in 1986 and thereafter the vacancy loss is projected to be 5 percent annually. Rents will remain flat through 1986 and will then increase at the rate of 5 percent per year.

- [5] Laundry revenue will vary with occupancy at 83.5 percent in 1986 and 98.4 percent in 1987 and thereafter. Laundry revenue will increase 2-1/2 percent in 1986 from the 1985 lease amount and thereafter the annual increase is estimated to be 5 percent per year. This percentage increase in laundry revenue anticipates greater use of the washer/dryer beyond the allowance limit as well as the effect of inflation.

Other income from the coffee shop, beauty shop, guest rooms, and other sources will vary with occupancy. In 1986 allowances for vacancy is 16.5 percent, and in 1987 and thereafter, vacancy loss is projected to be no more than 1.6 percent. The gross potential revenue from these sources is projected to remain at the 1985 base amount until 1987 when the residents will have gradually adapted to living in a retirement center and will make fuller use of these facilities and services. In 1987 and thereafter, revenue from other sources will increase at the rate of 7 percent per year.

- [6] The interest earned on security deposits varies with occupancy; in 1986 only 83.5 percent of the potential security deposits were earning interest, but from 1987 on, interest was earned on 98.4 percent of the potential security deposits. Interest at 9 percent is expected to remain stable.

Interest earned on the Debt Service Reserve Fund does not vary with occupancy and the interest rate is projected to be stable at 11.5 percent.

- [7] The total effective gross income for years 1985 through 1994 is entered into the discounted cash flow program MRCAP as fixed income net of vacancy losses. See Exhibit IV-10.

~~██████████~~
A RETIREMENT LIVING CENTER
SCHEDULE OF PROJECTED REVENUES AND EXPENSES FROM
JANUARY 1, 1985, THROUGH DECEMBER 31, 1994 [1]

		1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
TOTAL EFFECTIVE GROSS REVENUE [1]		64400	1177409	1442010	1522320	1606250	1695099	1789130	1888657	1994004	2105512
EXPENSES	Base Amount First Year of Operation	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
	34 effective gross before interest revenue										
MANAGEMENT FEE [2]		0	55270	68483	72440	76445	81087	85789	90765	96032	101600
FOOD SERVICE CONTRACT [3]	264771	0	221000	272500	287200	301602	316802	332518	349142	366599	384929
ADMINISTRATIVE [4]											
Personnel	75670	0	82101	78190	82100	86205	90515	95041	99793	104783	110022
Legal/Audit	10700	0	10700	11235	11800	12390	13010	13660	14343	15060	15813
Supplies, Dues & Advertising	5875	0	4900	6070	6300	6699	7034	7396	7755	8143	8550
SUBTOTAL: ADMINISTRATIVE	92253	0	78791	95495	100200	105294	110559	116087	121891	127986	134385
UTILITIES [5]											
Electricity	28700	0	24000	29370	30500	31720	32989	34308	35681	37108	38592
Water & Sewer	10700	0	8950	11050	11600	12180	12789	13428	14100	14805	15545
Gas	7600	0	6350	8000	7560	8089	8655	9261	9910	10603	11346
Telephone Service	12000	0	10020	12500	13270	14066	14910	15805	16753	17758	18824
SUBTOTAL: UTILITIES	59000	0	49320	60920	62930	66055	69343	72803	76443	80274	84307

EXHIBIT 32

MAINTENANCE (6)

Personnel-Building Services	42430	0	35430	44260	46910	49725	52708	55871	59223	62776	66543
Grounds Care	4725	0	3950	4880	5130	5387	5656	5939	6234	6547	6875
Rubbish Removal	2650	0	2200	2740	2870	3014	3164	3322	3489	3663	3846
Janitorial Supplies & Services	5985	0	5000	6180	6490	6815	7155	7513	7889	8283	8697
Vehicle Usage & Maintenance	3600	0	3000	3720	3910	4106	4311	4526	4753	4990	5240
Building Repairs & Maintenance	9035	0	7550	9430	9990	10589	11225	11898	12612	13369	14171
Elevator Maintenance Contract	7000	0	7000	7350	7718	8103	8509	8934	9381	9850	10342
Parking Lot Repair	200	0	200	200	1700	1802	1910	2025	2146	2275	2411
Decorating	5250	0	5250	5850	6140	6447	6769	7108	7463	7836	8228
Exterminating	850	0	710	880	920	966	1014	1065	1118	1174	1233
Laundry Expense	300	0	260	320	330	347	364	382	401	421	442
SUBTOTAL: MAINTENANCE	82025	0	70550	85810	92108	97299	102785	108583	114710	121185	128028
ALL RISK INSURANCE (7)	14700	0	14700	18440	18208	17918	17861	18754	19691	20676	21710
OPERATING EXPENSES BEFORE R.E. TAXES		0	489721	599708	631206	663905	698317	734531	772642	812752	854966
REAL ESTATE TAX (8)	13300	11650	13300	150500	174100	182805	191945	201543	211620	222201	233311
TOTAL OPERATING EXPENSES		11650	503021	750208	805306	846710	890262	936073	984262	1034952	1088277
NET OPERATING INCOME (before reserves, debt service, and income taxes)		52750	674388	692802	717014	759549	804837	853057	904395	959052	1017235

EXHIBIT 32 (Continued)

FOOTNOTES TO EXHIBIT

SCHEDULE OF PROJECTED REVENUES AND EXPENSES FROM
JANUARY 1, 1985, THROUGH DECEMBER 1, 1994

- [1] Total effective gross revenue is taken from Exhibit IV-8 which details each revenue component.

The operating expenses used for this project are based upon estimates made by [REDACTED] and checked for reasonableness against actual expenses experienced by other property managers in [REDACTED] or from service suppliers. The annual inflation factor of 5 percent used to forecast most of the expenses is based upon the following pattern of changes in the Consumer Price Index and upon the premise that current Federal deficits will cause the inflation rate to accelerate gradually from recent lows.

1980	-	10.8%	
1981	-	8.1%	
1982	-	3.5%	
1983	-	3.5%	
1984	-	4.0%	(Annualized)

- [2] The management fee is 5 percent of the effective gross revenue before interest revenue.

- [3] The expense for the food service contract assumes that all residents will utilize the seven-day meal plan which entitles each resident to one full dinner/supper each day of the week. The monthly service charge also includes the charge for the seven-day meal plan. The rate of increase in food service has been relatively stable in the past few years. according to [REDACTED], President of [REDACTED] in [REDACTED], from whom the quote of \$3.90 per meal per day was obtained.

forecasts future price increases to be less than 5 percent per year, including increases both for food products and for labor. Food service charges are assumed to vary with occupancy. Full occupancy of 149 residents plus 37 second occupants will result in an initial food service cost of \$264,771 (186 residents x 365 days x \$3.90), but in 1986, at 83.5 percent occupancy, the expense is \$221,090. In 1987 and thereafter, occupancy is assumed to remain stable at 98.4 percent with expenses increasing annually at 5 percent.

FOOTNOTES TO EXHIBIT

(Continued)

[4] Administrative personnel include an administrator, a resident service coordinator, a secretary-bookkeeper, receptionists, and other part-time administrative assistants. Added to the estimated base salary cost of \$63,065 is 20 percent for fringe benefits for a total base of \$75,678. Salaries are estimated to increase at 5 percent annually and staff size will vary with occupancy. Legal and audit costs are fixed and are inflated at 5 percent per year. Supplies, dues, and advertising costs vary with occupancy and are inflated annually at 5 percent.

[5] The Electric Power Company in has experienced a 2 percent rate decrease in 1984 and less than a 1 percent decrease has been requested for 1985. A surplus of electricity generating capacity in Wisconsin will keep electricity costs stabilized for the near future. Costs are assumed to increase at a generous 4 percent per year.

Natural gas increases in September/October of 1984 were approximately 3 percent. Both pipeline and utility operators expect the commodity charge for natural gas to be flat in the future with only inflationary increases anticipated, according to a spokesman for Natural Gas Co. An inflation factor of 5 percent is assumed for both gas and sewer and water. Local telephone service will be included in the monthly service charge for each apartment. The basic quote of \$12,000 from the telephone company for all telephone service is expected to inflate at 6 percent per year, higher than the anticipated inflation rate, because of the uncertainty of the telephone company's pricing policy.

[6] The personnel for building services include a full-time building service coordinator, a part-time general maintenance person and housekeepers to clean common areas and to provide monthly cleaning services for each apartment. The estimated salaries of \$35,360 plus 20 percent for fringe benefits total \$42,432. Salary increases for this type of work, more likely to be influenced by labor unions, are estimated to increase 6 percent annually.

Many of the maintenance services such as landscaping, rubbish removal, exterminating, and elevator maintenance are expected to be performed by contract. Parking lot repair and decorating expenses (the apartment portion of the total expenses) are expected to be minimal in the first two years of operation. An annual inflation factor of 5 percent is used to forecast expense increases for all maintenance categories except for labor. All maintenance expenses, except for the elevator contract, vary with occupancy or the age of the project.

FOOTNOTES TO EXHIBIT

(Continued)

[7] An all-risk insurance policy is a fixed expense and the premium is estimated to increase at 5 percent annually. Insurance coverage during construction is included in the construction budget.

[8] Real estate assessments are made as of the first of January of each year based upon the value in place on that day. Taxes, based on January first assessments, are due and payable in the following year, or an annual, semi-annual, or quarterly basis. Land value in 1984 is estimated to be \$462,000, or \$3,100 per unit. The 1983 net mill rate for property located in County was 0.02232 based upon assessments at 95.94 percent of full market value. At full market value the mill rate would be 0.02232/0.9594, or 0.02326. In 1984 the assessments are at 88.47 percent of full market value and the mill rate has not yet been determined. Using the 1983 mill rate of 0.02232/0.8847 equals a 1984 mill rate of 0.02523. Average mill rate increases over the past four years range from 2.5 percent to 4.4 percent for and Counties. However, forecasting real estate tax increases, an annual increase of 5 percent is used because State and Federal governments are continually withdrawing their tax funds from local tax districts.

For 1984 real estate taxes, payable in 1985, a land value of \$462,000 times a mill rate of 0.02523 yields taxes of \$11,650. As of January 1, 1985, the contractor estimates \$40,000 of site improvements will be added to the site. Therefore \$462,000 plus \$40,000, or \$502,000 times 0.02649 (0.02523 x 1.05) is \$13,300 for 1985 real estate taxes due in 1986. As of January 1, 1986, the project is expected to be 90 percent complete. Market value for real estate tax purposes of \$40,000 per unit includes \$3,100 per unit for land. Therefore, an improvement value of \$5,900,400, which is 90 percent complete, plus land, taxed at 0.02781 (0.02649 x 1.05) yields real estate taxes of \$150,500, payable in 1987. The completed project as of January 1, 1987, would be taxed at \$174,100 based upon the previously stated assumptions and would increase at 5 percent per year thereafter.

Table M

**Commitments of \$100,000 and Over on Multifamily and Nonresidential Mortgages
Made by 20 Life Insurance Companies**

Loan Size Class Within Major Property Type, Second Quarter, 1984

Major Property Type Loan Size	No. of Loans	Amount Committed (\$000)	Loan Amount (\$000)	Interest Rate (by %)	Interest Rate (by \$)	Loan/ Value	Averages		Debt Coverage	Percent Constant	Maturity (Years/Months)
							Capitaliza- tion Rate				
APARTMENT - CONVENTIONAL	22	147,578	6,708	12.94X	12.92X	68.9X	10.2X	1.12	13.3X	9/10	
Less than \$1 million	1	923	923	^	^	^	^	^	^	^	
\$1 million - \$3,999(000)	1	1,950	1,950	^	^	^	^	^	^	^	
\$4 million - \$7,999(000)	11	72,005	5,539	12.78	12.82	70.8	10.3	1.12	13.3	10/4	
\$8 million - \$14,999(000)	6	56,700	9,450	13.12	13.13	69.0	9.9	1.14	13.3	8/6	
\$15 million and over	1	16,000	16,000	^	^	^	^	^	^	^	
COMMERCIAL RETAIL	34	578,040	17,001	12.91	12.74	65.8	10.5	1.30	13.2	10/11	
Less than \$1 million	1	900	900	^	^	^	^	^	^	^	
\$1 million - \$3,999(000)	6	14,750	2,458	12.79	12.70	63.4	11.1	1.64	13.2	10/8	
\$4 million - \$7,999(000)	10	53,765	5,376	13.06	13.01	64.8	10.7	1.26	13.4	8/11	
\$8 million - \$14,999(000)	5	55,125	11,025	13.15	13.13	67.8	10.3	1.13	13.3	8/7	
\$15 million and over	12	453,500	37,792	12.75	12.66	66.4	9.9	1.25	12.9	14/1	
OFFICE BUILDING	153	2,039,996	13,333	12.94	13.01	69.7	10.5	1.25	13.1	10/9	
Less than \$1 million	6	4,185	698	13.59	13.67	60.4	11.9	1.14	14.0	6/8	
\$1 million - \$3,999(000)	43	106,296	2,472	13.07	13.03	70.7	10.9	1.19	13.2	8/7	
\$4 million - \$7,999(000)	43	242,231	5,633	13.08	13.06	69.2	10.4	1.39	13.2	9/6	
\$8 million - \$14,999(000)	24	256,054	10,669	12.38	12.38	71.3	10.4	1.18	12.6	13/9	
\$15 million and over	37	1,431,230	38,682	12.94	13.11	69.6	9.9	1.20	13.2	13/5	
COMMERCIAL SERVICE	21	104,692	4,985	13.19	13.26	64.4	10.8	1.41	13.6	9/0	
Less than \$1 million	1	710	710	^	^	^	^	^	^	^	
\$1 million - \$3,999(000)	11	24,027	2,184	13.25	13.22	68.9	11.4	1.23	13.6	9/7	
\$4 million - \$7,999(000)	5	25,725	5,145	12.88	13.00	53.4	9.4	1.59	13.7	9/7	
\$8 million - \$14,999(000)	2	17,000	8,500	^	^	^	^	^	^	^	
\$15 million and over	2	37,230	18,615	^	^	^	^	^	^	^	

^Data not shown for a limited number of loans.

(cont'd)

EXHIBIT 33

Second Quarter, 1984 (Cont'd)

Table M - page 2

Major Property Type Loan Size	No. of Loans	Amount Committed (\$000)	Averages							
			Loan Amount (\$000)	Interest Rate (by %)	Interest Rate (by %)	Loan/ Value	Capitaliza- tion Rate	Debt Coverage	Percent Constant	Maturity (Years/Months)
<u>INSTITUTIONAL AND RECREATIONAL</u>	1	5,000	5,000	12.00	12.00	71.4	10.6	1.15	13.1	4/5
<u>INDUSTRIAL</u>	40	240,163	6,004	12.00	12.49	61.8	10.9	1.33	14.0	3/8
Less than \$1 million	3	2,420	807	14.04	13.97	72.4	11.0	1.18	13.2	6/8
\$1 million - \$3,999(000)	18	38,912	2,162	13.01	12.94	72.8	10.2	1.09	12.8	5/0
\$4 million - \$7,999(000)	13	75,283	5,791	12.00	12.81	"	"	"	"	"
\$8 million - \$14,999(000)	2	23,559	11,700	"	"	72.4	9.9	1.03	13.1	10/0
\$15 million and over	4	99,989	24,997	11.00	11.96	"	"	"	"	"
<u>HOTEL AND MOTEL</u>	11	101,732	9,248	13.34	13.30	48.7	11.0	1.05	13.8	8/9
\$1 million - \$3,999(000)	2	4,000	2,000	"	"	"	"	"	"	"
\$4 million - \$7,999(000)	5	27,982	3,396	13.37	13.39	44.2	11.4	1.34	14.7	11/4
\$8 million - \$14,999(000)	1	8,000	8,000	"	"	"	"	"	"	"
\$15 million and over	3	61,750	20,343	13.33	13.20	34.1	9.9	1.71	13.3	6/8
<u>MULTIPLE PROPERTY COMPLEX</u> (ATL \$15 million and over)	3	120,000	42,647	13.00	13.00	60.9	10.0	1.31	13.3	10/0
TOTAL	285	3,345,201	11,730	12.97	12.95	60.1	10.5	1.27	13.2	9/10

Data not shown for a limited number of loans.

Note: Averages for capitalization rate, debt coverage ratio and percent constant may represent a fewer number of loans than the total for the specified category. Averages for interest rate are based on 273 loans. These include seven accrual loans with a mean accrual rate of 13.50% and a dollar-weighted average accrual rate of 13.67%. Nonrefundable fees were reported in connection with 31% of the total number and 42% of the amount committed. The comparable shares by property type ran 60% and 81% for apartments, 24% and 20% for commercial retail, 29% and 53% for office buildings, 24% and 24% for commercial services, 35% and 28% for industrial, and 9% and 17% for hotels and motels.

EXHIBIT 34

VALTEST
Discounted Cash Flow Model
(Renamed ATCF in Real Estate Planning Program)

4. Test for Investment Yield at Estimated
Market Value Assuming Cash to the Seller

A computerized discounted before and after tax cash flow program, VALTEST, is used to test the reasonableness of the appraised value. Input assumptions used are shown in Exhibit IV-4 and are taken from the Schedule of Revenues and Expenses (Exhibit IV-2) and from the MRCAP program output (Appendix C) which solved for the justified mortgage, assuming a debt cover ratio of 1.4 based upon the first year NOI of \$126,498. The net resale price is assumed to be \$1,130,000 based upon a net income multiplier of 6.5 applied to the NOI in the tenth year of the holding period, and cash resale costs of 4 percent.

The resulting modified internal rate of return of 15.6 percent before taxes and 14.2 percent after taxes represents a minimum threshold for equity investors. The Air Cargo Facility is fully priced at \$1,000,000 assuming cash to the seller and financed at a 13.25 percent interest rate and a 25-year term. (See Exhibit IV-4 for VALTEST output.)

EXHIBIT IV-4

INPUT ASSUMPTIONS

1. ENTER PROJECT NAME ? AIR CARGO FACILITY
 2. ENTER PROJECTION PERIOD ? 10
 3. DO YOU WANT TO ENTER EFFECTIVE GROSS REVENUE INSTEAD OF NOI? N
 - N.O.I. YEAR 1? 126498
 - N.O.I. YEAR 2? 131770
 - N.O.I. YEAR 3? 136943
 - N.O.I. YEAR 4? 142327
 - N.O.I. YEAR 5? 148691
 - N.O.I. YEAR 6? 154521
 - N.O.I. YEAR 7? 160588
 - N.O.I. YEAR 8? 167710
 - N.O.I. YEAR 9? 174280
 - N.O.I. YEAR 10? 181113
 4. ACQUISITION COST: ? 1000000
 5. DO YOU WANT TO USE STANDARD FINANCING? Y OR N?Y
 - MTG. RATIO OR AMOUNT, INT., TERM, NO PAY/YR ? 656633, .1325, 25, 12
 6. ENTER RATIO OF IMP #1/TOTAL VALUE, LIFE OF IMP #1? 1, 18
 - IS THERE A SECOND IMPROVEMENT? Y OR N? N
 7. DEPRECIATION METHOD, IMPROVEMENT #1 ? 1
 - IS PROPERTY SUBSIDIZED HOUSING ? Y OR N ?N
 - IS PROPERTY RESIDENTIAL? Y OR N? N
 8. IS OWNER A TAXABLE CORPORATION? Y OR N ?N
 - THE MAXIMUM FEDERAL INDIVIDUAL ORDINARY RATE COULD BE:
 - 70% (PRE-1981 LAW)
 - 50% (1981 LAW, EFFECTIVE 1982)
 - (PLUS STATE RATE)
- ENTER:
- 1) EFFECTIVE ORDINARY RATE 2) EFFECTIVE ORDINARY RATE (YEAR OF SALE)
 - ? .4, .4
9. RESALE PRICE (NET OF SALE COSTS) ? 1130000
 10. IS THERE LENDER PARTICIPATION ?N
 11. ENTER OWNER'S AFTER TAX REINVESTMENT RATE (Z)? 9
 12. ENTER OWNER'S AFTER TAX OPPORTUNITY COST OF EQUITY FUNDS (Z)? 9

AFTER TAX CASH FLOW PROJECTION
AIR CARGO FACILITY
DATE 1/1/85

DATA SUMMARY

ACQUISTN COST: \$1,000,000. MTG. AMT.: \$656,633.
 NOI 1ST YR: \$126,498. MTG. INT.: 13.25%
 ORG. EQUITY: \$343,367. MTG. TERM: 25. YRS
 LTD 1ST YEAR: \$36,143. DEBT SERVICE 1ST YEAR: \$90,355.
 MTG. CONST.: .137604
 IMP. #1 VALUE: \$1,000,000. IMP. #1 LIFE: 18.
 INC. TX RATE: 40%
 SALE YR RATE: 40% OWNER: INDIVIDUAL

DEPRECIATION IMPROVEMENT #1 : STRAIGHT LINE
 NON-RESIDENTIAL PROPERTY
 LENDER PARTICIPATION: CASH THROW-OFF: NONE REVERSION: NONE

NO REPRESENTATION IS MADE THAT THE ASSUMPTIONS BY LANDMARK RESEARCH, INC ARE PROPER OR THAT THE CURRENT TAX ESTIMATES USED IN THIS PROJECTION WILL BE ACCEPTABLE TO TAXING AUTHORITIES. NO ESTIMATE HAS BEEN MADE OF MINIMUM PREFERENCE TAX. CAPITAL LOSSES IN THE YEAR OF SALE ARE TREATED AS ORDINARY LOSSES (SECTION 1231 PROPERTY) AND ARE CREDITED AGAINST TAXES PAID AT THE ORDINARY RATE AT THE TIME OF SALE.
 FOR THE PURPOSE OF THE MODIFIED INTERNAL RATE OF RETURN (M.I.R.R.) CALCULATION, NEGATIVE CASH IN ANY ONE PERIOD IS TREATED AS A CONTRIBUTION FROM EQUITY IN THAT PERIOD.

YEAR	NOI	MTG INT & LENDERS %	TAX DEP	TAXABLE INCOME	INCOME TAX	AFTER TAX CASH FLOW
1.	126498.	86793.	55556.	-15851.	-6341.	42484.
2.	131770.	86291.	55556.	-10077.	-4032.	45447.
3.	136943.	85718.	55556.	-4332.	-1734.	48322.
4.	142327.	85065.	55556.	1706.	682.	51290.
5.	148691.	84320.	55556.	8815.	3526.	54810.
6.	154521.	83470.	55556.	15495.	6198.	57968.
7.	160598.	82500.	55556.	22532.	9013.	61220.
8.	167710.	81394.	55556.	30761.	12304.	65051.
9.	174280.	80132.	55556.	38593.	15437.	68488.
10.	181113.	78692.	55556.	46866.	18746.	72012.
	<u>\$1524441.</u>	<u>\$834375.</u>	<u>\$555556.</u>	<u>\$134508.</u>	<u>\$53799.</u>	<u>\$567089.</u>

EXHIBIT 34 (Continued)

EXHIBIT IV-4 (Continued)

RESALE PRICE: \$1,130,000.
 LESS MORTGAGE BALANCE: \$587,454.
 PROCEEDS BEFORE TAXES: \$542,546.
 LESS LENDER'S %: \$0.
 NET SALES PROCEEDS
 BEFORE TAXES: \$542,546.
 =====

1ST YR B4 TAX EQ DIV: 10.5260%
 AVG DEBT COVER RATIO: 1.6872

RESALE PRICE: \$1,130,000.
 LESS LENDER'S %: \$0.
 NET RESALE PRICE: \$1,130,000.
 LESS BASIS: \$444,444.
 TOTAL GAIN: \$685,556.
 EXCESS DEPRECIATION: \$0.
 EXCESS DEP. FORGIVEN: \$0.
 CAPITAL GAIN: \$685,556.
 ORDINARY GAIN: \$0.
 =====

TAX ON ORDINARY GAIN: \$0.
 TAX ON CAPITAL GAIN: \$109,689.
 PLUS MORTGAGE BAL: \$587,454.
 TOTAL DEDUCTIONS FROM
 NET RESALE PRICE: \$697,143.
 =====

NET SALES PROCEEDS
 AFTER TAX: \$432,857.
 =====

IF PURCHASED AS ABOVE, HELD 10 YEARS & SOLD FOR \$1,130,000.
THE MODIFIED I.R.R. BEFORE TAXES IS 15.2639% AND AFTER TAXES IS 13.8784%.
 ASSUMING AN AFTER TAX REINVESTMENT RATE OF 9%, AND OPPORTUNITY COST OF 9%

EXHIBIT 34 (Continued)

EXHIBIT IV-4 (Continued)

EQUITY ANALYSIS
AIR CARGO FACILITY

YR	NOI	BEFORE TAX EQUITY DIVIDEND		CASH RETURN	
		YR END EQUITY	AMOUNT	ORG EQ	CUR EQ
1.	\$126,498.	\$346,930.	\$36,143.	.1053	.1042
2.	131,770.	350,994.	41,415.	.1206	.1180
3.	136,943.	355,631.	46,588.	.1357	.1310
4.	142,327.	360,921.	51,972.	.1514	.1440
5.	148,691.	366,956.	58,336.	.1699	.1590
6.	154,521.	373,842.	64,166.	.1869	.1716
7.	160,588.	381,697.	70,233.	.2045	.1840
8.	167,710.	390,658.	77,355.	.2253	.1980
9.	174,280.	400,882.	83,925.	.2444	.2094
10.	181,113.	412,546.	90,758.	.2643	.2200

ORIGINAL EQUITY: \$ 343367

MORTGAGE ANALYSIS
AIR CARGO FACILITY

YEAR	NOI	MORT INT.	MORT AMORT	DEBT SERV	DCR	MTG. BAL.
1.	126498.	86793.	3563.	90355.	1.400	653070.
2.	131770.	86291.	4064.	90355.	1.458	649006.
3.	136943.	85718.	4637.	90355.	1.516	644369.
4.	142327.	85065.	5290.	90355.	1.575	639079.
5.	148691.	84320.	6035.	90355.	1.646	633044.
6.	154521.	83470.	6885.	90355.	1.710	626158.
7.	160588.	82500.	7855.	90355.	1.777	618303.
8.	167710.	81394.	8961.	90355.	1.856	609342.
9.	174280.	80132.	10224.	90355.	1.929	599118.
10.	181113.	78692.	11664.	90355.	2.004	587454.
AVG	\$152,444.				1.687	

EXHIBIT IV-4 (Continued)

DEPRECIATION SCHEDULE
 AIR CARGO FACILITY
 IMPROVEMENT # 1
 STRAIGHT LINE
 NON-RESIDENTIAL

YEAR	TAX DEP.	S.L. DEP.	EXCESS DEP	BALANCE
1.	55555.6	55555.6	.0	944444.4
2.	55555.6	55555.6	.0	888888.9
3.	55555.6	55555.6	.0	833333.3
4.	55555.6	55555.6	.0	777777.8
5.	55555.6	55555.6	.0	722222.2
6.	55555.6	55555.6	.0	666666.6
7.	55555.6	55555.6	.0	611111.1
8.	55555.6	55555.6	.0	555555.5
9.	55555.6	55555.6	.0	500000.0
10.	55555.6	55555.6	.0	444444.4

	=====	=====	=====
TOTAL	555555.6	555555.6	.0

DISTRIBUTION OF CASH THROW-OFF
 AIR CARGO FACILITY

YEAR	CASH THROW-OFF TOTAL	CASH THROW-OFF TO EQUITY	CASH BONUS TO LENDER
1.	36143.	36143.	0.
2.	41415.	41415.	0.
3.	46588.	46588.	0.
4.	51972.	51972.	0.
5.	58336.	58336.	0.
6.	64166.	64166.	0.
7.	70233.	70233.	0.
8.	77355.	77355.	0.
9.	83925.	83925.	0.
10.	90758.	90758.	0.
	-----	-----	-----
	620888.	620888.	0.

RESALE PRICE:	\$1,130,000.
LESS MORTGAGE BALANCE:	\$587,454.
PROCEEDS BEFORE TAXES:	\$542,546.
LESS LENDER'S %:	\$0.
NET SALES PROCEEDS BEFORE TAXES:	\$542,546.
	=====

CASH THROW-OFF = 0% REVERSION = 0%

Copy



James A. Graaskamp, Ph.D., S.R.E.A., C.R.E.

Jean B. Davis, M.S.

May 13, 1985

Norman P. Swent, Executive Director
Northwest Center for Professional Education
13555 Bel-Red Road
C-96870
Bellevue, WA 98009

Dear Paul:

Here are the two one-day course outlines I promised. Let me know if there is more detail required.

Please send a note confirming the various dates for the fall-winter road show as I seem to have misplaced your note.

Best regards,

JAMES A. GRAASKAMP

NORTHWEST CENTER FOR PROFESSIONAL EDUCATION

One Day Seminar

CONTEMPORARY ISSUES AND METHODS FOR APPRAISING COMMERCIAL PROPERTIES

- 8:30 - 10:00 Defining the appraisal problem with the client, his attorney, and the accountant
- A. The issue for which the appraisal is required as a benchmark
 - B. The exact "sticks" in the bundle of rights to be appraised
 - C. The perspective in time, viewpoint, and going concern assumption controlling the appraisal
 - D. The definition of value to be applied
 - E. Responsibility for engineering, marketing, or legal/political data and assumptions
 - F. Special enhancements or encumbrances to be valued as components
 - G. Specification as to methods, data sources, and controls on use through letter of engagement

Coffee Break

- 10:15 - 12:00 Decision theory and improved methods for the market comparison approach
- A. The three approaches in the contemporary method
 - B. Market inference by means of proxy patterns
 - C. Why regression pricing is discredited
 - D. Developing a pricing algorithm for comparable properties
 - E. Selecting the proper unit of comparison
 - F. The price per point per unit of comparison
 - G. Developing a point system for significant attributes of comparison
 - H. Developing a weighting system for the attribute scores
 - I. Testing the price weighting system for best estimate of the comparables by hand or by computer
 - J. Variations on the theme by Dilmore

LUNCH

- 1:00 - 3:00 Professionalizing the income approach or investment simulation approach
- A. Recognizing the significance for allocating income to real estate, personalty, intangible assets or management, depending upon the issue for which the appraisal is sought as a benchmark

- B. Perspective and accounting: cash or accrual, normalized or simulated
- C. Revenue classification and projection
- D. Operating expense classification and projection
- E. Income from operations vs. cash for distribution
- F. Projecting increases, leakages, and concessions
- G. Formatting the pro forma real estate operating statement
- H. Financial footnotes in lieu of a narrative report

Coke Break

3:00 - 5:00

Case examples of defining the issue, the method, and the accounting relevant to litigation

- A. Real estate tax appeal for subsidized houses
- B. Credit enhanced elderly housing with HODAG and income from providing support services
- C. Right-of-way for a power transmission line
- D. Partnership values in dissolution

5:00 - 5:30

Professional status for the appraisers in litigation matters

- A. The vested interest of the attorney
- B. Counseling vs. advocacy
- C. Compensation relative to value of service

Northwest Center for Professional Education

Just sp.

13555 Bel-Red Road, C-96870, Bellevue, Washington 98009 • (206) 746-4173

June 19, 1985

Dr. James A. Graaskamp
Pyare Square Building
4610 University Ave.
Room 118
Madison, WI 53705

Dear Jim:

As I'm sure you probably know by now, as a result of your discussion with Clem, we have decided to keep the New York City dates, September 26 and 27, for your program.

As you indicated, this fits your schedule the best, coupled with your personal objectives, so we will go ahead and market the program accordingly.

We look forward to a successful series of seminars.

Sincerely,



Norman P. Swent
Executive Director

NPS/tk